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Health Status Registry Report

Congenital Anomalies
Genetic Defects
Selected Disabilities

British Columbia to 1998

Prepared by
British Columbia Vital Statistics Agency
Ministry of Health and
Ministry Responsible for Seniors

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Vital Statistics
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Introduction

The Health Status Registry (HSR) is a comprehensive database of information operated by the Vital Statistics Agency. Data on individuals with congenital anomalies, other genetic conditions, and selected disabilities and handicapping conditions are collected in order to keep the public informed, respond to research requests, and conduct major research projects. This report provides an update of the information in the 1996 publication *Health Status Registry, Congenital Anomalies – Other Genetic Defects – Selected Chronic Disabilities, British Columbia to 1994.*

The report begins with the history of the Health Status Registry, and continues with general information on the Registry's objectives, confidentiality, registration criteria, diagnostic coding, data collection and updating. A guide to data interpretation completes the general information section of this report. This is followed by information about the HSR reporting sources. A table provides counts of diagnoses by source for 1997 and 1998. These reporting sources represent the "data capture" points used for information on congenital anomalies, other genetic conditions, and selected disabilities and handicapping conditions. Ascertainment of registrable cases is dependent upon complete and timely reporting by appropriate sources.

The first statistical section of this report provides an overview of the birth incidence of congenital anomalies in the province since 1970 and presents trends in birth incidence rates of selected congenital anomalies over the last decade. Counts by diagnosis show the number of provincial births with specific congenital anomalies for 1970-1979 and for each year from 1980 to 1998. This is followed by a table presenting the same diagnoses aggregated to show four time periods spanning the last two decades as well as statistically significant trends over the 1980-1998 time period. Next a series of graphs presents three-year moving averages for the incidence of selected congenital anomalies from 1980-1998. All this information provides a provincial overview prior to looking at congenital anomalies by areas within the province.

The next sections of this report present geographic information for the Ministry of Health's revised health regions (HR) and local health areas (LHA). The boundaries of these standard data dissemination areas correspond to those of the Regional Health Boards, Community Health Service Societies, and Community Health Councils.

The second section of this report begins with 1998 birth incidence of the congenital anomalies used for birth defect monitoring. This table presents the information by health region, using the mother's usual residence at the time she gave birth. The section continues with tables providing counts of congenital anomalies by year of birth for 1989-1998 for the province and for each health region. The section ends with tables presenting the birth incidence of congenital anomalies for the ten years combined. Tables show total congenital anomaly cases and diagnoses, congenital nervous system defects, congenital anomalies of heart, cleft palate and cleft lip, congenital musculoskeletal deformities, and chromosomal anomalies by the mother's health region at the time she gave birth.

The third section of this report continues to provide birth incidence of congenital anomalies for 1989-1998, but this section presents the information at the local health area level with the ten years combined. Tables and maps show total congenital anomaly cases and diagnoses, congenital nervous system defects, congenital anomalies of heart, cleft palate and cleft lip, congenital musculoskeletal deformities, and chromosomal anomalies by the mother's local health area at the time she gave birth.

The last two sections of the report provide information on the prevalence of "other genetic conditions" in the provincial population and selected disabilities and handicapping in children as of year end, 1998. The prevalence counts are presented for various conditions by age group, and are shown for the province as a whole, as well as for each health region based upon last known residence address. The report concludes with several appendices listing the diagnostic categories and codes used in the statistical sections of the report for congenital anomalies, birth defect monitoring, other genetic conditions, and selected chronic disabilities and handicapping conditions.

History of the Health Status Registry

In 1948, federal government grants were offered to all provinces to establish programs for the prevention, control, and treatment of crippling conditions in children. In British Columbia, the grant was used to determine the number and location of crippled children, the types of crippling diseases, and the availability of treatment facilities. A survey was conducted under the auspices of the British Columbia Medical Association, and sent to all physicians in the province; however, the response was dismal. Surveys were then completed based upon a review of all provincial hospital admission records for 1948 and 1949. Surveys were also sent to public health nurses in the Provincial Public Health Districts.

The completed surveys were sent to the Division of Vital Statistics for tabulation. When preliminary results indicated that most children were not receiving treatment early enough for maximum benefits, Vital Statistics revised the Physician's Notice of Birth to collect information on abnormalities at birth. The survey results found 20,000 crippled children and minimal treatment facilities.

In 1952, the *Crippled Children's Registry* was established under the Division of Vital Statistics in the Ministry of Health and Welfare in order to collect and collate data on crippled children, assist in the organization of services for these children, and refer crippled children to appropriate treatment facilities. The criteria for registration were less than 21 years of age with a disability severe enough to interfere with normal living, obtaining an education, and earning a livelihood.

In addition to collecting data, this voluntary registry conducted medical examinations to register new cases and reassess children already registered, and referred children to appropriate treatment facilities. Information was provided by Public Health Districts to ensure that cases in their catchment areas received adequate care. The Registry also assisted in the development of services for the handicapped. As volunteer and government organizations were organized, they joined private physicians and treatment and rehabilitation facilities as reporting sources. Mental health centres were also added as reporting sources. The Registry's name was changed to the *Handicapped Children's Registry* in 1957. At this time, there were less than 12,000 cases.

In response to the thalidomide disaster in 1960, the age limit of 21 was removed and the name was changed to *Registry for Handicapped Children and Adults*. The criteria for registration were also expanded to include all familial conditions and congenital malformations. During this decade, more reporting sources were added, including UBC Medical Genetics, death and stillbirth registrations, obstetrical discharge summaries, the Cancer Registry, and hospital admissions/separations for children with congenital anomalies who were less than 7 years old. A study to assess the results of treatment and rehabilitation was initiated through the Public Health School Programs. The "7 and 14 Study" provided information on children of these ages and continued for ten years. During the 1960s the Registry's focus began to change, as it became a more passive data repository. By 1968 there were 36,000 cases.

In 1975, the Registry's name was changed to the *Health Surveillance Registry* as risk registers for amniocentesis, rubella, hyaline membrane disease, and fetal alcohol syndrome were added. The Registry's objectives were to provide a reliable basis for estimating the prevalence, incidence, and distribution of specific conditions by ascertaining, recording, and classifying handicapping conditions, congenital anomalies, and genetic defects in the population of British Columbia; to assist health services and physicians in the ascertainment, diagnosis, monitoring, and management of such conditions; and to undertake statistical analysis of the data collected and assist medical and genetic research based on the data. There were approximately 55,000 cases in the Registry in 1973, and almost 100,000 by the end of 1978, largely as a result of an increase in reporting sources.

In 1980, the Cancer Registry, previously part of the Health Surveillance Registry, moved to the Cancer Control Agency of British Columbia. At this time, there were 68 active reporting sources and about 108,000 cases; these numbers grew to more than 80 reporting sources and 195,000 cases by 1989. The Registry maintained a low profile during the 1980s amid the provincial government's downsizing and "privatization". The HSR Annual Report, begun in 1975, was replaced by summary tables presented in the Division of Vital Statistics Annual Reports.

In the early 1990s an evaluation of the Registry was conducted and a development plan was prepared which provided recommendations on data collection and recording, access and security, medical coding systems and consultation needs, and technological requirements. In 1991, the *Royal Commission Report on Health Care and Costs* contained a recommendation that Vital Statistics should develop and maintain a registry of individuals with disabilities to assist in the development of long-range plans and to monitor the changing needs of the population. Subsequently, in September 1992, amendments to the Health Act established the legislative mandate and responsibilities for the HSR.

The Registry's current name (Health Status Registry) was acquired in 1992. In order to refocus the Registry's emphasis on children, the criteria for registration of individuals with long-term physical, mental and/or emotional problems was restricted to persons under the age of 20 years old, however registration of persons with genetic conditions was not age limited. By 1998 there were approximately 200,000 records in the Registry.

General Information

HSR Mission, Mandate and General Objectives

The British Columbia Vital Statistics Agency administers section 10 of the Health Act by operating the Health Status Registry. The mission, mandate, and general objectives of the Registry are:

- to record and classify information concerning congenital anomalies, genetic conditions and selected handicapping conditions of children;
- to assist health care planners and others in the planning and development of appropriate services by providing accurate and reliable data on congenital anomalies, genetic conditions and chronic handicapping conditions; and
- to undertake statistical analysis of the data collected and to assist medical and genetic research based on this data.

Additional objectives are:

- to keep the public informed by producing timely and accurate statistical-related products, while maintaining the confidentiality of the data,;
- to respond to research requests from a wide and varied audience, such as governments, universities, private and public organizations, health-related researchers and planners, and administrators;
- to develop the HSR as a useful tool that will be utilized by the health care system.

Confidentiality

Maintenance of the confidentiality of HSR data is essential. Confidentiality of the data is protected by ensuring that all staff involved with HSR data comply with the *Freedom of Information and Privacy Act*, the *Health Act*, and HSR Policy and Procedures. The *Freedom of Information and Privacy Act* states that disclosure of personal information is an unreasonable invasion of a personal privacy if the information relates to a medical, psychiatric or psychological history, diagnosis, condition, treatment or evaluation. The *Health Act* specifies that persons acting on behalf of the Health Status Registry must not communicate personally identifying information to persons who are not acting on behalf of the Registry except to the extent necessary for recording and classifying information concerning congenital anomalies, genetic conditions or chronic handicapping conditions. HSR Policies and Procedures require staff to get prior authorization from the Director of the Vital Statistics Agency before contacting a registered individual or their physician. Registry staff may contact reporting sources concerning registered individuals to clarify information received from the source or to request additional information about the diagnosis or treatment.

Confidentiality is also considered when personal identifiers are not involved. The content of statistical tables requires approval for release by the Director of the Vital Statistics Agency or the Manager of Information and Resource Management Branch, and the information must be reviewed to ensure small numbers do not allow for the identification of specific individuals. Data without any personal identifiers may be released to a bona fide researcher provided that a copy of the proposal to conduct research is first submitted and approved by the Director of the Vital Statistics Agency. In addition, the researcher must sign an agreement that specifies that the data supplied will only be used for the approved project and that all files will be destroyed upon completion of the project. Data elements that are not personal identifiers but which could allow for the identification of an individual (such as a postal code) are not released.

Criteria for Registration

Since January 1, 1993, the criteria for registration of a case/individual within the HSR is as follows:

- a person who is 19 years of age or less and is diagnosed as having a physical, mental, and/or emotional problem which is likely to have long-term disabling effects, to interfere substantially with education, or to prevent full and open functional employment; or
- a person of any age who is diagnosed as having a genetic condition or congenital anomaly that is not necessarily disabling.

Diagnostic Coding

Reporting sources provide identifying and medical information to the Health Status Registry about individuals known to them who meet the criteria for registration. These individuals may have more than one registrable condition/diagnosis. The medical diagnoses are coded by trained staff using the *International Classification of Diseases*, ninth revision (ICD9). An etiology code, identifying the probable cause of the disease or condition, is assigned to applicable diagnoses. For some cases, more specific identification is achieved through application of a six-digit code based on McKusick's classification system of inherited conditions, which provides genetic researchers with the specific detail they require to distinguish various genetic conditions and congenital anomalies. More information on the diagnoses used in this report can be found at the beginning of each section presenting statistics for congenital anomalies, other genetic conditions, and selected disabilities and handicapping conditions.

Data Collection/Updating

The daily operation of the Health Status Registry includes registration of new cases and updating existing cases. This process begins when information is received from reporting sources. Some sources, such as Children's Hospital, UBC and Victoria General Hospital Medical Genetics, provide information electronically, while others provide hard copies. The information is reviewed to ensure that the case meets the criteria for registration and lives in the province. After the medical coding is complete, a search determines if this is an initial registration or the case is already in the Health Status Registry and data entry is done.

Periodic linkage with Vital Statistics' death files ensures that the death "flag" on HSR records is up to date for individuals who died in British Columbia. This allows the Registry to produce tables of still living cases, as well as snapshots of registrable conditions based on years of birth or at particular points in time. Records for individuals born in the province are also linked to the Vital Statistics' birth files so data pertaining to the individual's birth can be added to their HSR record.

Guide to Data Interpretation

There are several points to keep in mind when interpreting the kind of information presented in this report. Incomplete case reporting, variations in reporting over time and by areas, and changes in technology have all had an impact upon the HSR. For many of the diagnostic conditions presented in this report, the data should be interpreted as a summary of what is currently available in the Health Status Registry, not as complete statistics on the birth incidence or prevalence of the condition. The remainder of this section elaborates further upon these points.

Some of the rates presented in this report, such as total diagnoses, are based on counts of infants born with any congenital anomaly. Anomalies can vary widely in their severity and in their impact on the future health of individuals afflicted. Some congenital anomalies may not require ongoing health care management or treatment. Therefore, when assessing rates, consideration should be given to the types of anomalies that are contributing to the rates presented in the table.

Tables in this report may show congenital anomaly rates for single years or at the health region or local health area level. For some conditions or for some of the areas, the rates are based on small counts so yearly fluctuations of a few cases will have a large impact. In addition, the completeness of the data may vary depending on the consistency and compliance of reporting by sources.

The reporting sources determine the degree of completeness of registrations and the currency of data on individual cases. HSR case coverage varies by condition, with good coverage for major birth defects that are readily identifiable at birth, to limited coverage for conditions which are usually not diagnosed until late childhood. The time required for diagnosis and reporting also varies by condition, so recent years may have lower counts than earlier years. The reader should always keep in mind that the numbers in this report represent cases or diagnoses reported to the Health Status Registry, not necessarily the number of cases or conditions occurring in each year.

When comparing HSR data for various areas, the reader is also reminded that the utilization of specialized services may not be uniform across all areas. If residents who live close to a specialized service are more likely to use the service than individuals who live much farther away, HSR data will reflect these utilization rates. Thus higher rates in one area might indicate more services, more utilization of services, or differences in the incidence of various conditions compared to other areas.

Changes in prenatal screening have also had an impact on the HSR data. With the advent of amniocentesis and ultrasound techniques, many types of anomalies can be detected early in pregnancy and the mother may choose to abort the fetus. HSR data on congenital anomalies includes cases that meet the criteria for registration as a stillbirth (a minimum of 20 weeks gestation or 500 grams weight). HSR collects information on medically terminated pregnancies due to congenital anomalies according to the Provincial Health Officer's recommendations in 1998. The information on Fetal Alcohol Syndrome (FAS) which was also recommended were not included in this publication due to inadequate reporting to year end 1998.

And, finally, unexplained clusters of cases have often been found when examining congenital anomaly rates over time. Many congenital anomalies show large variations from year to year, even when the rates are stable over longer periods of time. Thus it is quite common to see no cases with a specified anomaly for a number of years, followed by several cases in one year, then fewer or none, and then the pattern repeats.

HSR Reporting Sources

Introduction

The Health Status Registry reporting sources represent the "data capture" points used for information on congenital anomalies, other genetic conditions, and selected disabilities and handicapping conditions. Ascertainment of registrable cases is dependent upon complete and timely reporting by appropriate sources. The numbers and kinds of reporting sources have changed considerably over time. Although legislation now requires individuals and organizations to submit data to the Health Status Registry, these data have historically been collected from voluntary reporting sources. When the focus of the HSR changed to emphasize registering disabling or handicapping conditions only when they involved children, a number of reporting sources for non-childhood conditions were discontinued. Reported numbers also decreased from some other sources.

Congenital anomalies are present at birth, but only those that are clinically apparent or manifest severe symptoms are likely to be noted on the Notice of Live Birth or Stillbirth which is completed and sent to the Vital Statistics Agency within 48 hours of the birth. Reporting of less evident congenital anomalies, such as pyloric stenosis and many heart defects, depends on contact by the individual with one of the Registry's other reporting sources such as the British Columbia's Children's Hospital, other acute care hospitals, or the health regions. A large proportion of genetic and disabling or handicapping conditions are even less likely to be identified at birth. Cases with genetic conditions are most often reported by UBC and Victoria General Hospital Medical Genetics. For conditions other than those that are present at birth, consistent and complete reporting from sources other than Vital Statistics is essential.

The concept of building case histories through data from multiple reporting sources over an extended period of time is an integral part of this kind of database. Reports on the same individual from several different sources serve to add, update, and correct the existing information, thus improving its accuracy and relevance.

Highlights

Table 1 shows that a total of 35,950 diagnoses were reported by HSR sources in 1997 and 1998.

Data submitted on the hospital admission/discharge abstracts from acute care hospitals throughout the province via the Ministry of Health's Acute and Continuing Care Division (formerly known as Hospital Programs) was the most significant source of HSR data. During the fall of 1997, data from these hospitals covering the period 1993 through 1997 was obtained and added to the Registry. Some of this information, plus data reported in 1998, resulted in a total 15,826 reported diagnoses, or almost half (44.0%) of all the diagnoses for 1997 and 1998.

Another third (32.6%) of the reported diagnoses in 1997 and 1998 came from British Columbia's Children's Hospital. This source reported 11,717 diagnoses.

Vital Statistics' Live Births, Stillbirths, and Deaths were the source of more than one in seven of the diagnoses (5,447 in all).

Most health authorities in the health regions (formerly health units) were also reporting sources in 1997 and 1998. Health authorities reported a total of 1,797 diagnoses and the Capital Health Region reported the majority of these (1,111 diagnoses).

UBC and Victoria General Hospital Medical Genetics also reported many diagnoses (1,189) to HSR in 1997 and 1998.

Table 1
Number of Diagnoses Provided by Reporting Source
British Columbia, 1997 - 1998

Reporting Source		Number of Diagnoses
001	East Kootenay Community Health Services Society	15
002	Kootenay Boundary Community Health Services Society	23
004	North Okanagan Health Region	20
005	Okanagan Similkameen Health Region	44
006	Thompson Health Region	15
007	Fraser Valley Health Region	33
009	South Fraser Health Region	125
010	Simon Fraser Health Region	28
011	Coast Garibaldi Community Health Services Society	19
013	Central Vancouver Island Health Region	129
014	Upper Island/Central Coast Community Health Services Society	14
015	Cariboo Community Health Services Society	20
016	North West Community Health Services Society	10
017	Peace Liard Community Health Services Society	70
018	Northern Interior Regional Health Board	21
040	Capital Health Region	1,111
046	UBC Medical Genetics	876
052	British Columbia's Children's Hospital	11,717
064	Vital Statistics - Live Births	4,700
080	Hospital Admission/Discharge Abstracts*	15,826
081	Vital Statistics - Stillbirths	210
082	Vital Statistics - Deaths	537
101	Victoria General Hospital Medical Genetics	313
167	British Columbia's Children's Hospital - CF Clinic	28
170	Willow Clinic	17
	All Other Sources	29
	Total	**35,950**

Notes: Counts include all unique diagnoses provided by the specified reporting source.
*Includes diagnoses which have not been reviewed.

Section 1: Congenital Anomalies – Overview and Trends

Introduction

A congenital defect, present at birth, can result from genetic or environmental factors, or both. The purpose of a birth defects monitor is to sound alarms if the incidence of birth defects increases in response to environmental factors. Some congenital anomalies require surgical intervention, many require ongoing treatment, and all present a reason for concern. In British Columbia in 1998, congenital anomalies were the leading cause of infant mortality, accounting for a third of the deaths under one year of age. In addition, nearly a tenth of stillbirths were due to congenital defects.

Congenital anomalies are caused by gene mutations. These may be inherited from a parent, result from errors during cell division, or result from events during or after conception. Specific drugs, especially when taken in a particular trimester, radiation exposure, certain viruses, and maternal use of alcohol and tobacco have all been identified as factors associated with congenital defects. Recent years have seen increased investigation into the possible effects of other environmental factors. Chromosomal abnormalities also result when meiosis and mitosis are not completed in a normal fashion. Whether this abnormal genetic trait is inherited from one parent or both determines whether offspring will carry or manifest the defect. Certain genetic diseases have been found to occur more frequently within populations from specific ethnic backgrounds. In affected families, the risk of occurrence of congenital defects increases with each child.

The groups of congenital anomalies used in this report were selected on the basis of similar system development and to provide sufficient counts. Subgroups were selected to reflect either the most serious of conditions (where numbers warranted) or the most common within the group. The complete list of groups and subgroups is provided in Appendix 1. Neural tube defects include spina bifida, meningocele, and encephalocele. Anomalies of the eye refers to defects ranging in severity from complete agenesis to aphakia, coloboma, or ptosis of the lid. Congenital cataract and entropion are among the most frequently reported conditions in this group. Defects of the ear, face and neck include for example, anomalies that cause hearing impairment, branchial cleft cyst, webbing of neck, and macrostomia; conditions with a wide range of impairment. The most common conditions in this group, preauricular skin tags or deformities of the pinna, are relatively less disabling. Other anomalies of the heart include, for the most part, unspecified heart defects, heart valve anomalies, or dextrocardia. Other circulatory system anomalies include defects of the aorta, pulmonary arteries, or peripheral circulation, and possibly most often, single umbilical artery. While agenesis, and more commonly, hypoplasia of the lung or larynx/trachea/bronchus atresia represent a small portion of Respiratory System Anomalies, choanal atresia is probably more frequently reported. The most frequently reported anomalies of genital organs are undescended testicles and hypospadias.

Anomalous conditions of the integument such as hemangioma, strawberry nevus, or epidermolysis bullosa can be severely disfiguring but the vast majority of conditions reported in this category are ill-defined birthmarks or skin tags. The congenital anomalies classification categories represent conditions with a wide range in level of severity of impairment, disability or disfigurement.

This section provides an overview of the birth incidence of congenital anomalies in the province since 1970 and presents trends in birth incidence rates of selected congenital anomalies over the last decade. Table 2 shows the number of provincial births with specific congenital anomalies by diagnostic category for 1970-1979 and for each year from 1980 to 1998. Table 3 presents the same diagnoses aggregated to show four time periods spanning the last two decades as well as statistically significant trends over the 1980-1998 time period. Next a series of graphs presents three-year moving averages for the incidence of selected congenital anomalies from 1980-1998. All this information provides a provincial overview prior to looking at congenital anomalies by areas within the province. The reader is referred to Appendix 1 for the complete list of congenital anomaly categories and codes used in Tables 2 and 3. Caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report.

Highlights

As shown in Table 2, the Health Status Registry recorded 79,960 congenital anomaly diagnoses in 57,011 live births and stillbirths born between 1970 and 1998 in British Columbia. In this time period, between 1,300 and 2,700 total births (live births plus stillbirths) per year were reported with at least one major or minor congenital anomaly.

More than a quarter of the congenital anomaly diagnoses (21, 862) were musculoskeletal deformities; the most common of these were foot defects (varus, valgus, and clubfoot) with 5,907 diagnoses and congenital dislocated hip with 4,943 diagnoses.

Both anomalies of the heart and anomalies of the genital organs were responsible for more than a tenth each of the congenital anomaly diagnoses reported to the HSR.

Table 3 shows trends in the congenital anomaly rates for total births over four time periods spanning 1980 to 1998, as well as indicating statistically significant trends for the entire time period based on the diagnoses reported to the Health Status Registry.

Congenital musculoskeletal deformities, with the largest number of diagnoses reported, did not show a statistically significant trend over the 1980-1998 period. The subcategory of congenital dislocated hip showed a statistically significant increase, while subgroups of other musculoskeletal deformities showed statistically significant decreases over the time period.

The major categories of congenital anomalies which showed a statistically significant decrease over the 1980-1998 period were anomalies of the respiratory system and other anomalies of the digestive system, while anomalies of the urinary system, chromosomal anomalies, and multiple congenital anomalies showed statistically significant increases. Two of the three subcategories of anomalies of the urinary system, cystic kidney disease and other anomalies of the urinary system, showed statistically significant increases over the time period. Both subcategories of chromosomal anomalies, Downs syndrome and other chromosomal anomalies, also showed statistically significant increases. Since the risk of chromosomal anomalies in the baby increases with advancing maternal age, the increases in Downs syndrome and other chromosomal anomalies might reflect increases in the number of births to elderly mothers.

Figures 1 through 12 also show trends in the incidence of selected congenital anomaly rates for total births for 1980 to 1998, but these are based on three-year moving averages. A solid line shows the rates, while a dotted line indicates the trend over the entire time period. Graphs are provided for total diagnoses (all anomalies), anencephalus and similar conditions, neural tube defects, hydrocephalus, ventricular septal defect, patent ductus arteriosus, cleft palate/lip, congenital dislocated hip, foot defects (varus, valgus, and clubfoot), finger defects (polydactyly/syndactyly), limb reductions, and Downs syndrome. The rate for total diagnoses of all anomalies for 1980-1998 averaged 63.64 per 1,000 total births. However, the incidence rates for all categories of reported congenital anomalies are low, ranging from almost four per 1,000 total births for congenital dislocated hip or varus, valgus and clubfoot, to less than three per 10,000 total births for anencephaly.

Many of the trends in the reported incidence of selected congenital anomaly rates for 1980 to 1998 showed small decreases; anencephaly, neural tube defects, foot defects, finger defects, and limb reductions showed small downward trends. The trend shown for all anomalies combined is, therefore, downward, with a decrease of about two per 1,000 total births during the time period. There were five congenital anomaly categories that showed increasing trends: ventricular septal defects, patent ductus arteriosus, cleft palate/lip, congenital dislocated hip, and Downs syndrome. The rates for congenital dislocated hip and patent ductus arteriosus increased the most, by about two births per 1,000 total births over the time period, while ventricular septal defect, cleft palate/lip and Downs syndrome rates showed smaller increases (under one birth per 1,000 total births).

Table 2
Congenital Anomalies for Total Births by Year of Birth
British Columbia, 1970 - 1998

Diagnosis / ICD Code(s)	1970-1979	1980	1981	1982	1983	1984	1985	1986	1987	1988	1989
Nervous System Defects 740 -742	1,390	167	145	146	140	131	129	163	131	135	130
anencephalus & similar defects 740.0-740.2	216	15	23	21	12	10	18	18	9	16	13
neural tube defects 741.0, 741.9, 742.0	433	41	39	37	39	38	40	55	35	41	60
hydrocephalus 742.3	351	46	37	28	19	16	22	18	23	24	18
other	390	65	46	60	70	67	49	72	64	54	39
Anomalies of Eye, 743	699	75	61	83	41	40	42	53	40	33	31
Anomalies of Ear, Face, Neck 744	821	117	99	103	77	71	81	76	66	77	59
Anomalies of Heart 745.0 -746.9	3,432	337	358	367	357	304	352	290	306	254	217
transposition of great vessels 745.1	162	22	21	19	18	12	30	15	15	19	20
tetralogy of Fallot 745.2	190	16	27	19	17	24	23	18	30	18	20
ventricular septal defect 745.4	1,080	107	120	121	98	69	94	78	83	58	38
hypoplastic left heart syndrome 746.7	55	11	14	13	15	13	6	9	13	5	4
other	1,945	181	176	195	209	186	199	170	165	154	135
Other Circulatory System Anomalies 747.0 -747.9	1,760	289	282	311	300	258	294	292	268	174	134
patent ductus arteriosus 747.0	889	150	145	169	163	148	154	159	114	72	52
Anomalies of Respiratory System 748	412	109	120	158	140	176	202	203	165	126	62
Cleft Palate/Cleft Lip 749.0-749.2	848	81	101	105	101	105	99	101	70	95	98
Anomalies of Upper Alimentary Tract 750	1,513	213	195	217	107	83	87	81	92	87	59
tracheoesophageal fistula/atresia/stenosis 750.3	104	18	9	17	20	18	10	9	12	11	11
pyloric stenosis 750.5	1,119	121	115	104	41	39	50	36	44	43	38
other	290	74	71	96	46	26	27	36	36	33	10
Other Anomalies of Digestive System 751	791	99	86	130	113	95	98	78	89	91	72
Anomalies of Genital Organs 752	3,375	448	453	468	306	268	287	251	243	173	187
Anomalies of Urinary System 753	1,370	93	119	113	132	136	141	136	142	149	108
renal agenesis 753.0	163	17	19	27	19	20	24	21	23	23	17
cystic kidney disease 753.1	106	7	17	13	23	20	20	20	22	22	14
other	1,101	69	83	73	90	96	97	95	97	104	77
Congenital Musculoskeletal Deformities 754-756	7,963	1,094	1,035	1,044	739	642	705	624	568	531	481
cong. dislocated hip 754.3	1,660	184	193	169	115	109	129	85	80	91	89
lordosis/scoliosis 754.2	77	17	6	10	11	6	6	10	8	4	3
varus, valgus, clubfoot 754.5-754.7	2,695	329	315	296	174	146	144	151	152	109	97
polydactyly, syndactyly 755.0-755.1	804	88	79	84	82	64	61	85	64	77	61
limb reductions 755.2-755.4	362	37	34	36	35	28	34	34	26	37	14
chondro/ osteo dystrophies 754.6-756.5	137	13	17	14	25	12	12	18	15	10	12
other	2,228	426	391	435	297	277	319	241	223	203	205
Anomalies of the Integument 757 , 228.0	983	201	162	179	118	121	127	96	101	72	68
hemangioma 228.0	135	13	9	6	7	4	9	7	7	8	9
other	848	188	153	173	111	117	118	89	94	64	59
Chromosomal Anomalies 758	640	76	73	76	95	77	92	82	95	79	88
Downs syndrome 758.0	441	45	44	47	62	45	51	49	54	47	52
other	199	31	29	29	33	32	41	33	41	32	36
Multiple & Multiple System Anomalies 759.7-759.8	183	30	27	43	34	43	71	49	22	32	46
Other and Unspecified Anomalies 759.0-759.6,759.9	308	27	34	33	29	31	25	33	30	29	21
Total Diagnoses	**26,488**	**3,456**	**3,350**	**3,576**	**2,829**	**2,581**	**2,832**	**2,608**	**2,428**	**2,137**	**1,861**
Total Cases	**20,375**	**2,655**	**2,637**	**2,683**	**1,989**	**1,793**	**1,970**	**1,784**	**1,642**	**1,476**	**1,306**

Table 2
Congenital Anomalies for Total Births by Year of Birth
British Columbia, 1970 - 1998

Diagnoses	1990	1991	1992	1993	1994	1995	1996	1997	1998	Total 1989-1998	Total 1970-1989
Nervous System Defects 740 -742	137	119	147	122	149	197	188	142	124	1,455	4,132
anencephalus & similar defects 740.0-740.2	9	8	11	5	11	14	8	7	4	90	448
neural tube defects 741.0, 741.9, 742.0	55	38	71	36	36	34	43	26	30	429	1,227
hydrocephalus 742.3	39	22	10	17	25	30	24	14	13	212	796
other	34	51	55	64	77	119	112	95	77	723	1,660
Anomalies of Eye, 743	51	42	26	31	43	70	54	48	42	438	1,605
Anomalies of Ear, Face, Neck 744	65	82	62	46	97	93	118	113	97	832	2,420
Anomalies of Heart 745.0 -746.9	324	317	280	290	405	505	593	565	565	4,061	10,418
transposition of great vessels 745.1	17	21	15	13	14	33	30	34	36	233	566
tetralogy of Fallot 745.2	23	18	20	14	13	19	18	17	20	182	564
ventricular septal defect 745.4	67	92	72	81	105	110	165	142	131	1,003	2,911
hypoplastic left heart syndrome 746.7	15	8	10	8	9	16	16	11	14	111	265
other	201	178	163	174	264	327	364	361	364	2,531	6,111
Other Circulatory System Anomalies 747.0 -747.9	172	165	165	149	285	357	513	471	435	2,846	7,074
patent ductus arteriosus 747.0	76	55	59	52	117	165	267	245	231	1,319	3,482
Anomalies of Respiratory System 748	72	91	62	55	73	73	109	99	77	773	2,584
Cleft Palate/Cleft Lip 749.0-749.2	132	111	107	100	117	91	125	136	126	1,143	2,849
Anomalies of Upper Alimentary Tract 750	68	67	70	65	105	114	135	126	91	900	3,575
tracheoesophageal fistula/atresia/stenosis 750.3	17	11	10	9	20	18	10	17	14	137	365
pyloric stenosis 750.5	32	38	41	28	21	30	30	28	26	312	2,024
other	19	18	19	28	64	66	95	81	51	451	1,186
Other Anomalies of Digestive System 751	67	70	82	64	72	100	104	100	105	836	2,506
Anomalies of Genital Organs 752	174	205	227	234	299	277	446	342	230	2,621	8,893
Anomalies of Urinary System 753	149	157	198	177	162	166	191	180	198	1,686	4,217
renal agenesis 753.0	19	21	38	17	29	18	25	15	23	222	578
cystic kidney disease 753.1	18	19	25	30	15	21	40	27	27	236	506
other	112	116	135	130	118	127	126	138	148	1,227	3,132
Congenital Musculoskeletal Deformities 754-756	675	633	606	551	750	595	981	901	744	6,917	21,862
cong. dislocated hip 754.3	238	209	198	177	252	137	344	272	212	2,128	4,943
lordosis/scoliosis 754.2	3	1	5	4	3	-	4	2	2	27	182
varus, valgus, clubfoot 754.5-754.7	117	114	124	129	150	123	201	195	146	1,396	5,907
polydactyly, syndactyly 755.0-755.1	62	63	77	58	64	53	84	79	75	676	2,164
limb reductions 755.2-755.4	23	33	27	16	15	30	35	28	25	246	909
chondro/ osteo dystrophies 754.6-756.5	12	11	8	19	7	15	12	12	15	123	396
other	220	202	167	148	259	237	301	312	269	2,320	7,360
Anomalies of the Integument 757 , 228.0	66	59	82	69	176	94	159	159	96	1,028	3,188
hemangioma 228.0	7	11	8	4	24	18	31	29	10	151	356
other	59	48	74	65	152	76	128	130	86	877	2,832
Chromosomal Anomalies 758	111	112	110	92	121	133	163	169	139	1,238	2,623
Downs syndrome 758.0	64	71	44	60	59	66	75	90	65	646	1,531
other	47	38	64	32	62	67	88	79	74	587	1,087
Multiple & Multiple System Anomalies 759.7-759.8	44	50	45	32	68	55	49	62	55	506	1,040
Other and Unspecified Anomalies 759.0-759.6,759.9	33	40	24	26	37	61	49	52	52	395	974
Total Diagnoses	**2,340**	**2,320**	**2,293**	**2,103**	**2,959**	**2,981**	**3,977**	**3,665**	**3,176**	**27,675**	**79,960**
Total Cases	**1,609**	**1,608**	**1,621**	**1,496**	**1,959**	**1,770**	**2,544**	**2,261**	**1,833**	**18,007**	**57,011**

Table 3

Trends of Congenital Anomalies Rates for Total Births (Live Birth and Stillbirth) by Year of Birth British Columbia, 1980 - 1998

	1980-1984				1985-1989				1990-1994			
			C.I.				C.I.				C.I.	
Diagnosis / ICD Code(s)	Total	Rate	Lower	Upper	Total	Rate	Lower	Upper	Total	Rate	Lower	Upper
Nervous System Defects 740 -742	729	3.42	3.17	3.66	688	3.21	2.97	3.45	674	2.92	2.70	3.14
anencephalus & similar defects 740.0-740.2	81	0.38	0.30	0.46	74	0.34	0.27	0.42	44	0.19	0.13	0.25
neural tube defects 741.0, 741.9, 742.0	194	0.91	0.78	1.04	231	1.08	0.94	1.22	236	1.02	0.89	1.15
hydrocephalus 742.3	146	0.68	0.57	0.80	105	0.49	0.40	0.58	113	0.49	0.40	0.58
other	308	1.44	1.28	1.60	278	1.30	1.14	1.45	281	1.22	1.07	1.36
Anomalies of Eye, 743	300	1.41	1.25	1.56	199	0.93	0.80	1.06	193	0.84	0.72	0.95
Anomalies of Ear, Face, Neck 744	467	2.19	1.99	2.39	359	1.67	1.50	1.85	352	1.52	1.36	1.68
Anomalies of Heart 745.0 -746.9	1,723	8.07	7.69	8.45	1,419	6.61	6.27	6.96	1,616	7.00	6.65	7.34
transposition of great vessels 745.1	92	0.43	0.34	0.52	99	0.46	0.37	0.55	80	0.35	0.27	0.42
tetralogy of Fallot 745.2	103	0.48	0.39	0.58	109	0.51	0.41	0.60	88	0.38	0.30	0.46
ventricular septal defect 745.4	515	2.41	2.20	2.62	351	1.64	1.46	1.81	417	1.81	1.63	1.98
hypoplastic left heart syndrome 746.7	66	0.31	0.23	0.38	37	0.17	0.12	0.23	50	0.22	0.16	0.28
other	947	4.44	4.15	4.72	823	3.84	3.57	4.10	960	4.24	3.98	4.51
Other Circulatory System Anomalies 747.0 -747.9	1,440	6.75	6.40	7.10	1,162	5.42	5.10	5.73	936	4.05	3.79	4.31
patent ductus arteriosus 747.0	775	3.63	3.38	3.89	551	2.57	2.35	2.78	359	1.55	1.39	1.71
Anomalies of Respiratory System 748	703	3.29	3.05	3.54	758	3.53	3.28	3.78	353	1.53	1.37	1.69
Cleft Palate/Cleft Lip 749.0-749.2	493	2.31	2.11	2.51	463	2.16	1.96	2.35	567	2.45	2.25	2.66
Anomalies of Upper Alimentary Tract 750	815	3.82	3.56	4.08	406	1.89	1.71	2.08	375	1.62	1.46	1.79
tracheoesophageal fistula/atresia/stenosis 750.3	82	0.38	0.30	0.47	53	0.25	0.18	0.31	67	0.29	0.22	0.36
pyloric stenosis 750.5	420	1.97	1.78	2.16	211	0.98	0.85	1.12	160	0.69	0.59	0.80
other	313	1.47	1.30	1.63	142	0.66	0.55	0.77	148	0.64	0.54	0.74
Other Anomalies of Digestive System 751	523	2.45	2.24	2.66	428	1.99	1.81	2.18	355	1.54	1.38	1.70
Anomalies of Genital Organs 752	1,943	9.10	8.70	9.51	1,141	5.32	5.01	5.63	1,139	4.93	4.64	5.22
Anomalies of Urinary System 753	593	2.78	2.55	3.00	676	3.15	2.91	3.39	843	3.65	3.40	3.90
renal agenesis 753.0	102	0.48	0.39	0.57	108	0.50	0.41	0.60	124	0.54	0.44	0.63
cystic kidney disease 753.1	80	0.37	0.29	0.46	98	0.46	0.37	0.55	107	0.46	0.38	0.55
other	411	1.93	1.74	2.11	470	2.19	1.99	2.39	611	2.64	2.44	2.85
Congenital Musculoskeletal Deformities 754-756	4,554	21.34	20.72	21.96	2,909	13.56	13.06	14.05	3,215	13.92	13.44	14.40
cong. dislocated hip 754.3	770	3.61	3.35	3.86	474	2.21	2.01	2.41	1,074	4.65	4.37	4.93
lordosis/scoliosis 754.2	50	0.23	0.17	0.30	31	0.14	0.09	0.20	16	0.07	0.04	0.10
varus, valgus, clubfoot 754.5-754.7	1,260	5.90	5.58	6.23	653	3.04	2.81	3.28	634	2.74	2.53	2.96
polydactyly, syndactyly 755.0-755.1	397	1.86	1.68	2.04	348	1.62	1.45	1.79	324	1.40	1.25	1.56
limb reductions 755.2-755.4	170	0.80	0.68	0.92	145	0.68	0.57	0.79	114	0.49	0.40	0.58
chondro/ osteo dystrophies 754.6-756.5	81	0.38	0.30	0.46	67	0.31	0.24	0.39	57	0.25	0.18	0.31
other	1,826	8.56	8.16	8.95	1,191	5.55	5.24	5.87	996	4.31	4.04	4.58
Anomalies of the Integument 757 , 228.0	781	3.66	3.40	3.92	464	2.16	1.97	2.36	452	1.96	1.78	2.14
hemangioma 228.0	39	0.18	0.13	0.24	40	0.19	0.13	0.24	54	0.23	0.17	0.30
other	742	3.48	3.23	3.73	424	1.98	1.79	2.16	398	1.72	1.55	1.89
Chromosomal Anomalies 758	397	1.86	1.68	2.04	436	2.03	1.84	2.22	546	2.36	2.17	2.56
Downs syndrome 758.0	243	1.14	1.00	1.28	253	1.18	1.03	1.32	298	1.29	1.14	1.44
other	154	0.72	0.61	0.84	183	0.85	0.73	0.98	243	1.05	0.92	1.18
Multiple & Multiple System Anomalies 759.7-759.8	177	0.83	0.71	0.95	220	1.03	0.89	1.16	239	1.03	0.90	1.17
Other and Unspecified Anomalies 759.0-759.6,759.9	154	0.72	0.61	0.84	138	0.64	0.54	0.75	160	0.69	0.59	0.80
Total Diagnoses	15,792	73.99	72.84	75.15	11,866	55.30	54.30	56.29	12,015	52.01	51.08	52.94
Total Cases	11,757				8,178				8,293			
Total Births	213,429				214,584				231,007			

Notes: Rates per 1,000 total births

TR - Trends at 5% of significance level, based on three years moving average

↗ indicates a statistically significantly positive (increasing) trend and

↘ indicates a statistically significantly negative (decreasing) trend

C. I. Confidence Interval

Table 3

Trends of Congenital Anomalies Rates for Total Births (Live Birth and Stillbirth) by Year of Birth British Columbia, 1980 - 1998

	1995-1998				1980-1998				
			C.I.				C.I.		
	Total	Rate	Lower	Upper	Total	Rate	Lower	Upper	TR
Nervous System Defects 740 -742	651	3.59	3.32	3.87	2,742	3.26	3.14	3.39	
anencephalus & similar defects 740.0-740.2	33	0.18	0.12	0.24	232	0.28	0.24	0.31	↘
neural tube defects 741.0, 741.9, 742.0	133	0.73	0.61	0.86	794	0.95	0.88	1.01	
hydrocephalus 742.3	81	0.45	0.35	0.54	445	0.53	0.48	0.58	↘
other	403	2.22	2.01	2.44	1,270	1.51	1.43	1.59	↗
Anomalies of Eye, 743	214	1.18	1.02	1.34	906	1.08	1.01	1.15	
Anomalies of Ear, Face, Neck 744	421	2.32	2.10	2.55	1,599	1.90	1.81	2.00	
Anomalies of Heart 745.0 -746.9	2,228	12.30	11.79	12.81	6,986	8.31	8.12	8.51	
transposition of great vessels 745.1	133	0.73	0.61	0.86	404	0.48	0.43	0.53	
tetralogy of Fallot 745.2	74	0.41	0.32	0.50	374	0.45	0.40	0.49	↘
ventricular septal defect 745.4	548	3.02	2.77	3.28	1,831	2.18	2.08	2.28	
hypoplastic left heart syndrome 746.7	57	0.31	0.23	0.40	210	0.25	0.22	0.28	
other	1,416	7.82	7.41	8.22	4,166	4.96	4.81	5.11	↗
Other Circulatory System Anomalies 747.0 -747.9	1,776	9.80	9.35	10.26	5,314	6.32	6.15	6.49	
patent ductus arteriosus 747.0	908	5.01	4.69	5.34	2,593	3.09	2.97	3.21	
Anomalies of Respiratory System 748	358	1.98	1.77	2.18	2,172	2.59	2.48	2.69	↘
Cleft Palate/Cleft Lip 749.0-749.2	478	2.64	2.40	2.88	2,001	2.38	2.28	2.49	
Anomalies of Upper Alimentary Tract 750	466	2.57	2.34	2.81	2,062	2.45	2.35	2.56	
tracheoesophageal fistula/atresia/stenosis 750.3	59	0.33	0.24	0.41	261	0.31	0.27	0.35	
pyloric stenosis 750.5	114	0.63	0.51	0.74	905	1.08	1.01	1.15	↘
other	293	1.62	1.43	1.80	896	1.07	1.00	1.14	
Other Anomalies of Digestive System 751	409	2.26	2.04	2.48	1,715	2.04	1.94	2.14	↘
Anomalies of Genital Organs 752	1,295	7.15	6.76	7.54	5,518	6.57	6.39	6.74	
Anomalies of Urinary System 753	735	4.06	3.76	4.35	2,847	3.39	3.26	3.51	↗
renal agenesis 753.0	81	0.45	0.35	0.54	415	0.49	0.45	0.54	
cystic kidney disease 753.1	115	0.63	0.52	0.75	400	0.48	0.43	0.52	↗
other	539	2.98	2.72	3.23	2,031	2.42	2.31	2.52	↗
Congenital Musculoskeletal Deformities 754-756	3,221	17.78	17.17	18.39	13,899	16.54	16.27	16.82	
cong. dislocated hip 754.3	965	5.33	4.99	5.66	3,283	3.91	3.77	4.04	↗
lordosis/scoliosis 754.2	8	0.04	0.01	0.07	105	0.12	0.10	0.15	↘
varus, valgus, clubfoot 754.5-754.7	665	3.67	3.39	3.95	3,212	3.82	3.69	3.96	↘
polydactyly, syndactyly 755.0-755.1	291	1.61	1.42	1.79	1,360	1.62	1.53	1.70	↘
limb reductions 755.2-755.4	118	0.65	0.53	0.77	547	0.65	0.60	0.71	↘
chondro/ osteo dystrophies 754.6-756.5	54	0.30	0.22	0.38	259	0.31	0.27	0.35	↘
other	1,119	6.18	5.81	6.54	5,132	6.11	5.94	6.28	↘
Anomalies of the Integument 757 , 228.0	508	2.80	2.56	3.05	2,205	2.62	2.51	2.73	
hemangioma 228.0	88	0.49	0.38	0.59	221	0.26	0.23	0.30	↗
other	420	2.32	2.10	2.54	1,984	2.36	2.26	2.47	↘
Chromosomal Anomalies 758	604	3.33	3.07	3.60	1,983	2.36	2.26	2.46	↗
Downs syndrome 758.0	296	1.63	1.45	1.82	1,090	1.30	1.22	1.37	↗
other	308	1.70	1.51	1.89	888	1.06	0.99	1.13	↗
Multiple & Multiple System Anomalies 759.7-759.8	221	1.22	1.06	1.38	857	1.02	0.95	1.09	↗
Other and Unspecified Anomalies 759.0-759.6,759.9	214	1.18	1.02	1.34	666	0.79	0.73	0.85	↗
Total Diagnoses	13,799	76.17	74.90	77.44	53,472	63.64	63.10	64.18	
Total Cases	8,408				36,636				
	181,163				840,183				

Figure 1
Trends in Selected Congenital Anomaly Rates
All Anomalies
British Columbia, 1980 - 1998

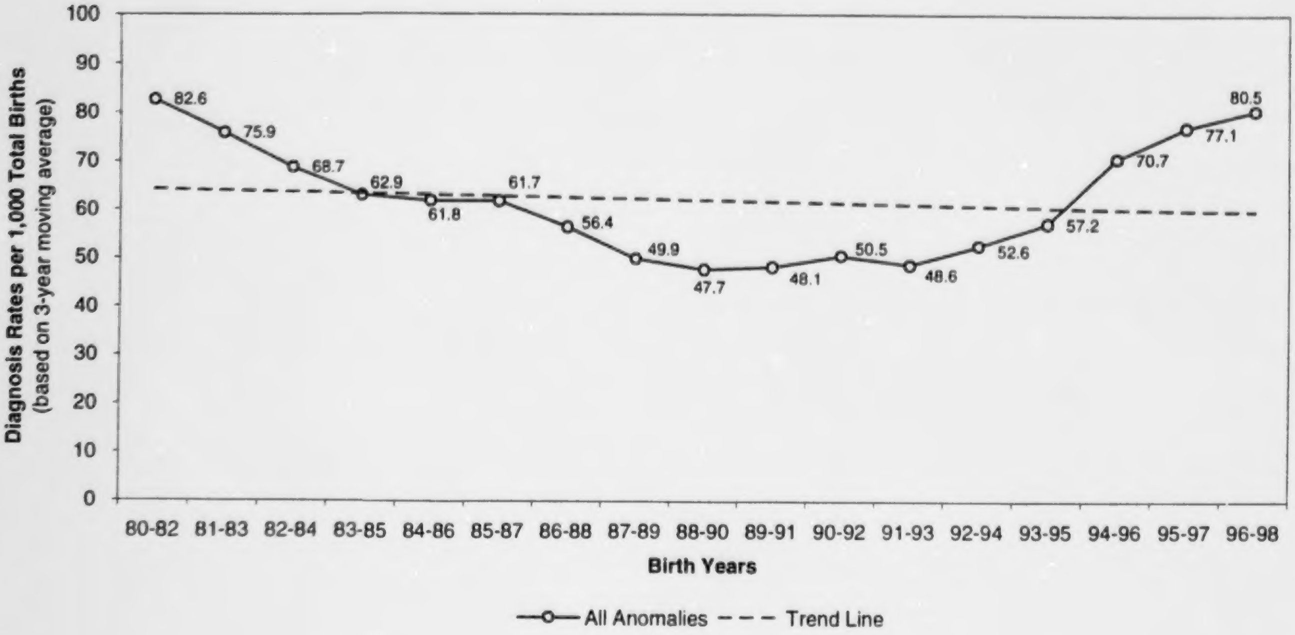


Figure 2
Trends in Selected Congenital Anomaly Rates
Anencephalus & Similar Defects
British Columbia, 1980 - 1998

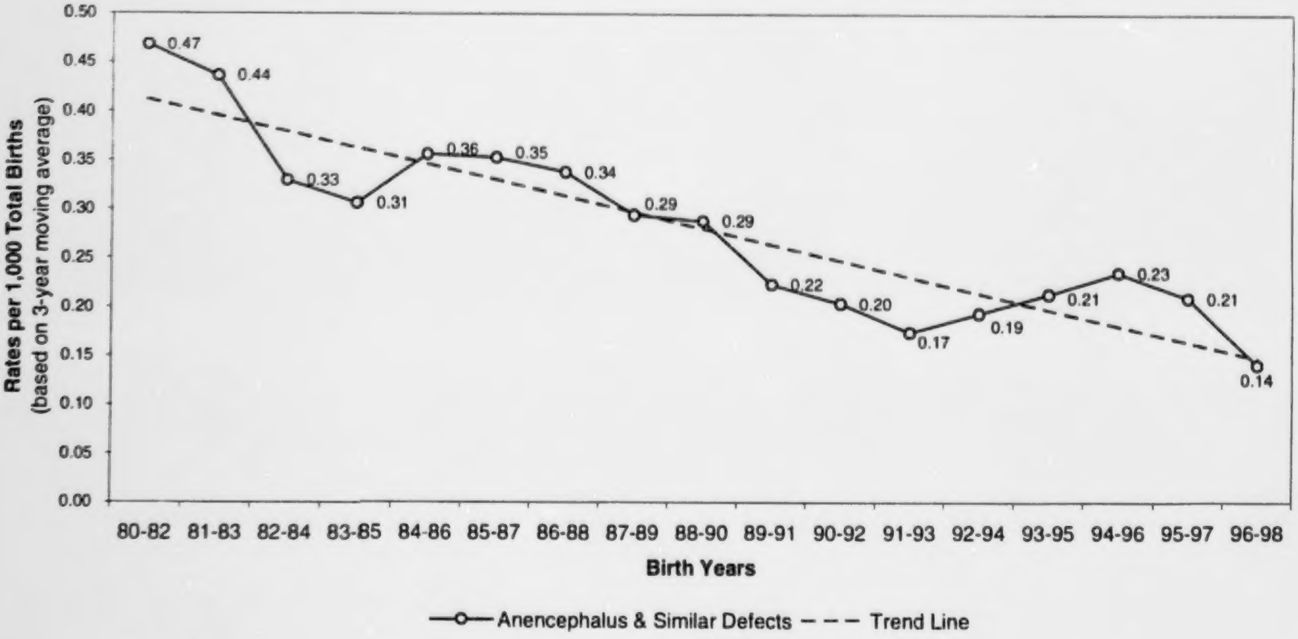


Figure 3
Trends in Selected Congenital Anomaly Rates
Neural Tube Defects
British Columbia, 1980 - 1998

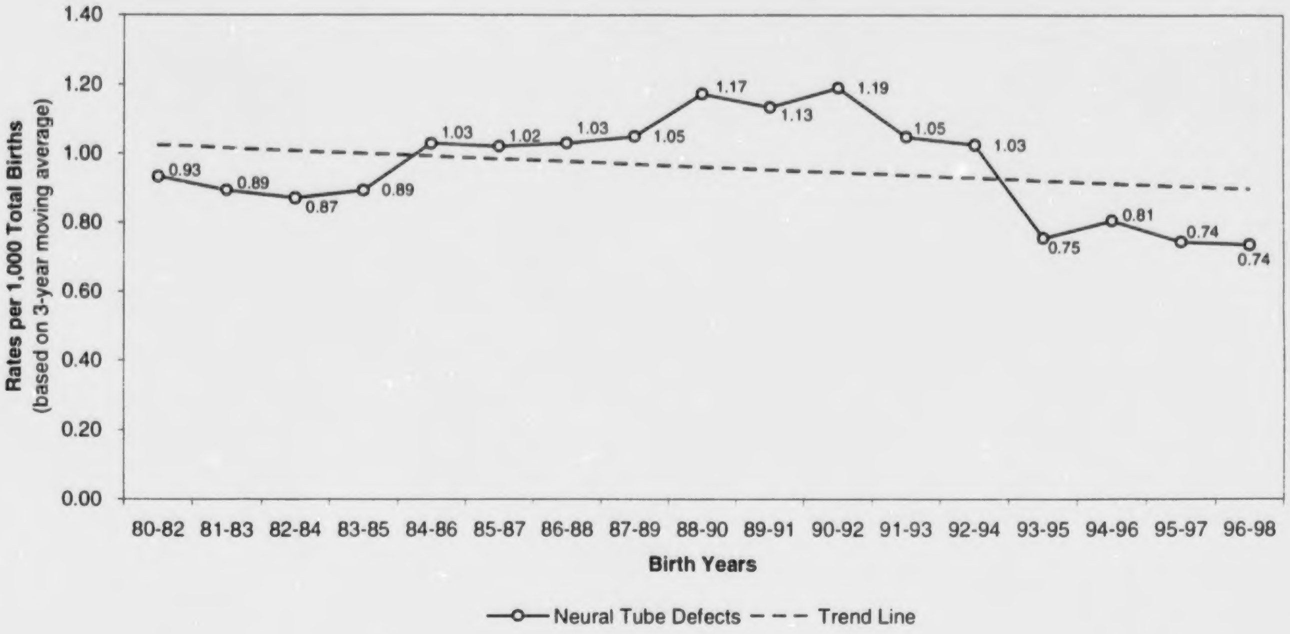


Figure 4
Trends in Selected Congenital Anomaly Rates
Hydrocephalus
British Columbia, 1980 - 1998

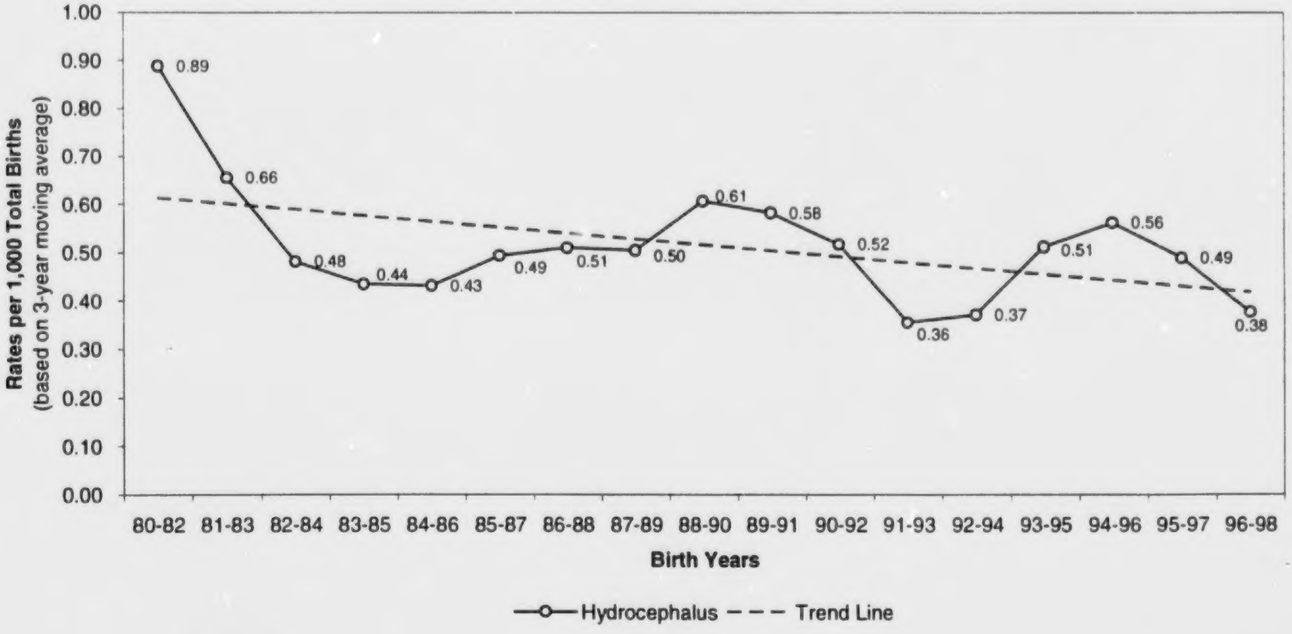


Figure 5

Trends in Selected Congenital Anomaly Rates
Ventricular Septal Defect
British Columbia, 1980 - 1998

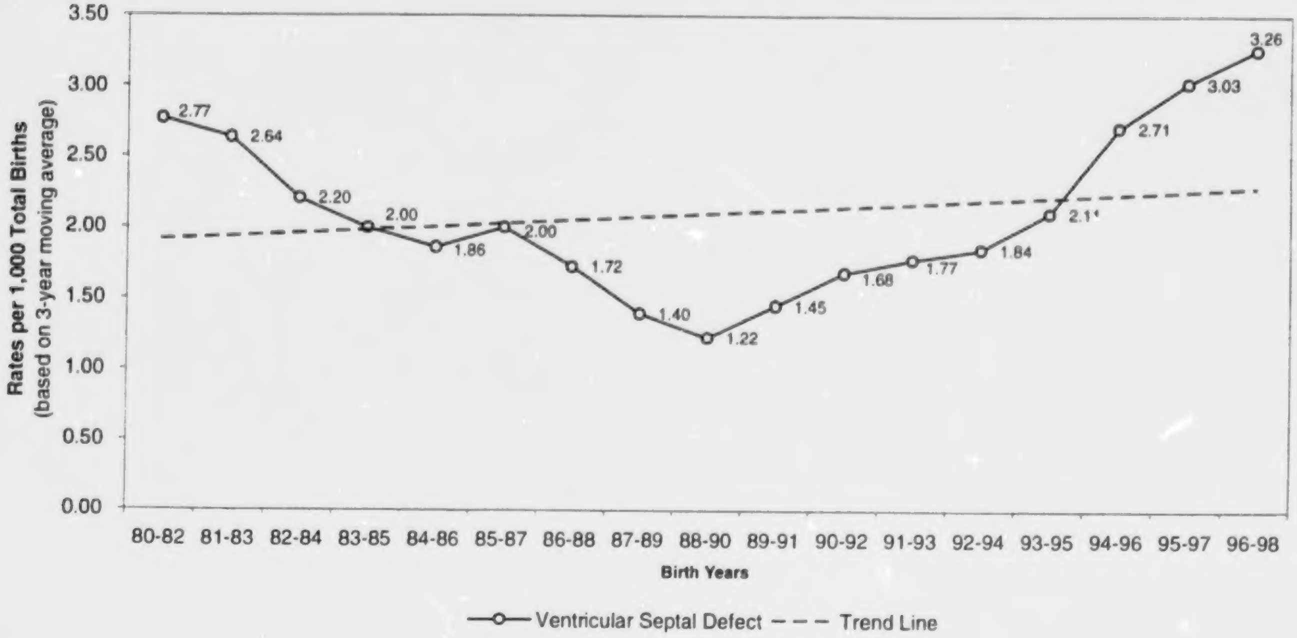


Figure 6

Trends in Selected Congenital Anomaly Rates
Patent Ductus Arteriosus
British Columbia, 1980 - 1998

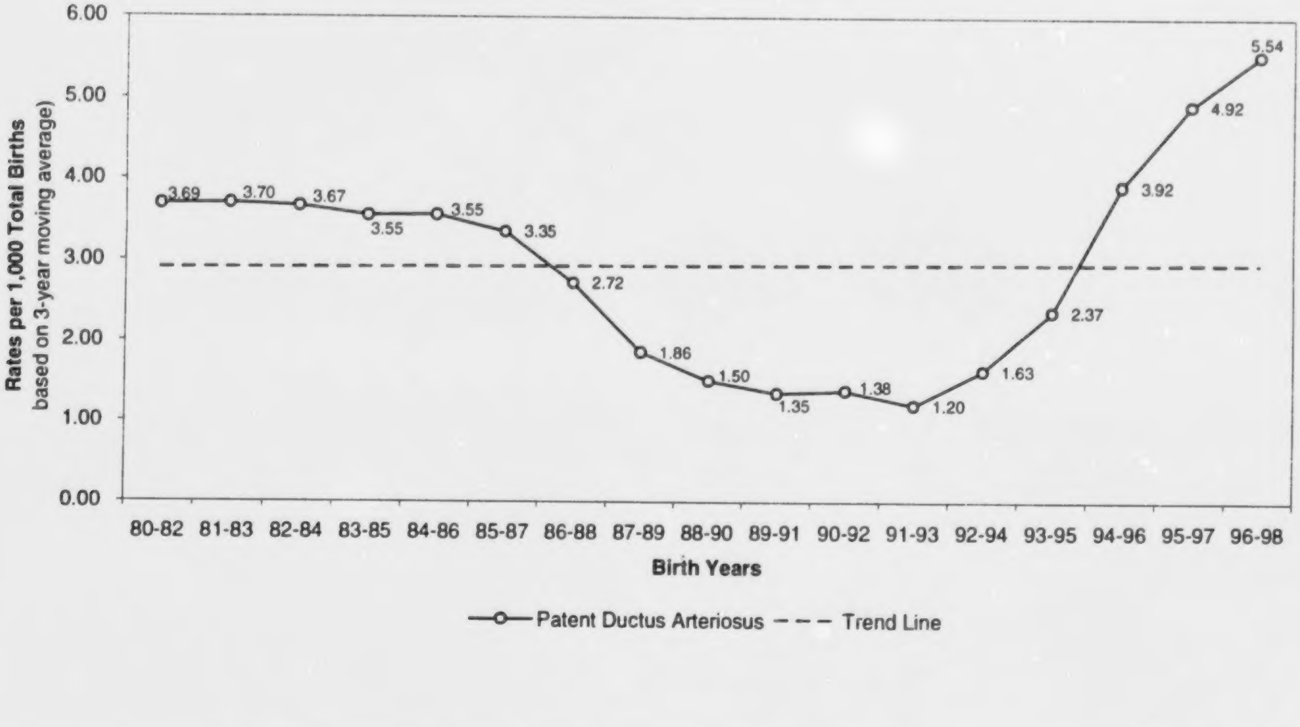


Figure 7
Trends in Selected Congenital Anomaly Rates
Cleft Palate/Cleft Lip
British Columbia, 1980 - 1998

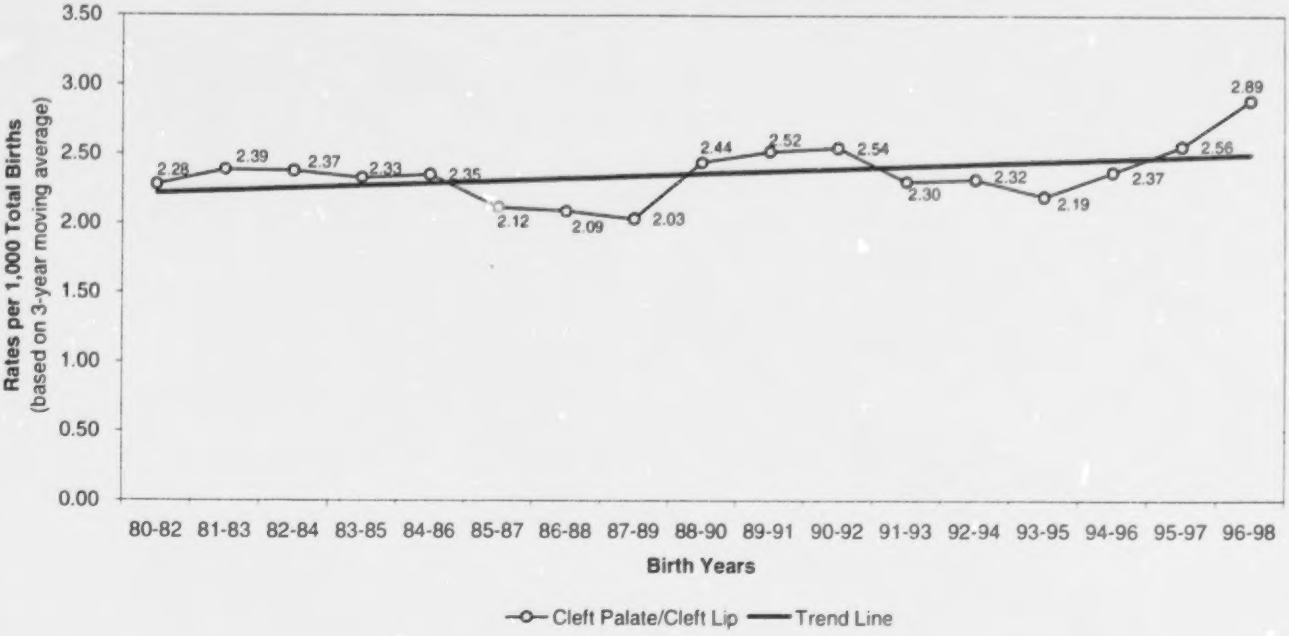


Figure 8
Trends in Selected Congenital Anomaly Rates
Congenital Dislocated Hip
British Columbia, 1980 - 1998

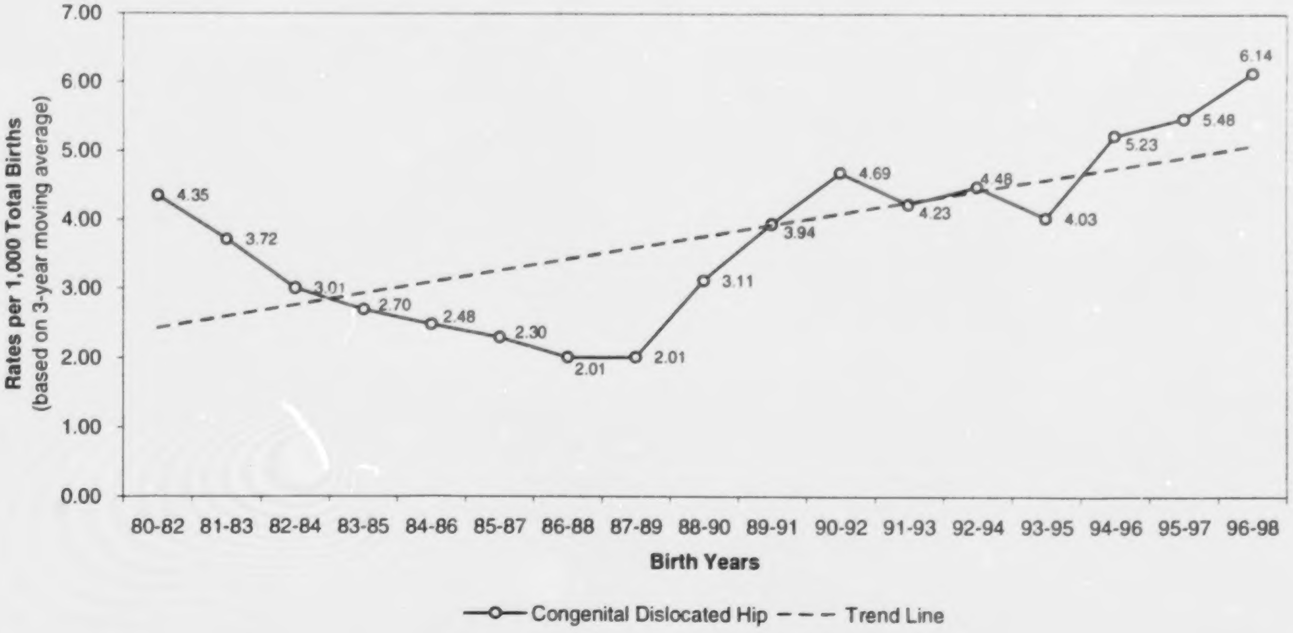


Figure 9

Trends in Selected Congenital Anomaly Rates
Varus, Valgus, Clubfoot
British Columbia, 1980 - 1998

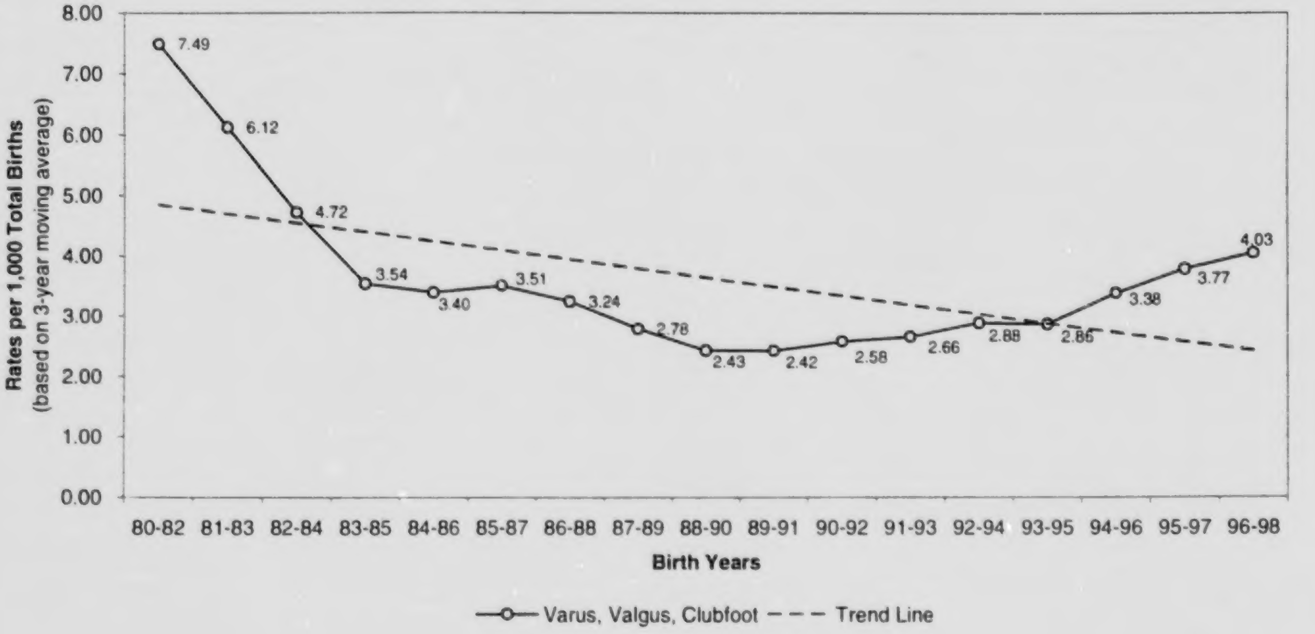


Figure 10

Trends in Selected Congenital Anomaly Rates
Polydactyly, Syndactyly
British Columbia, 1980 - 1998

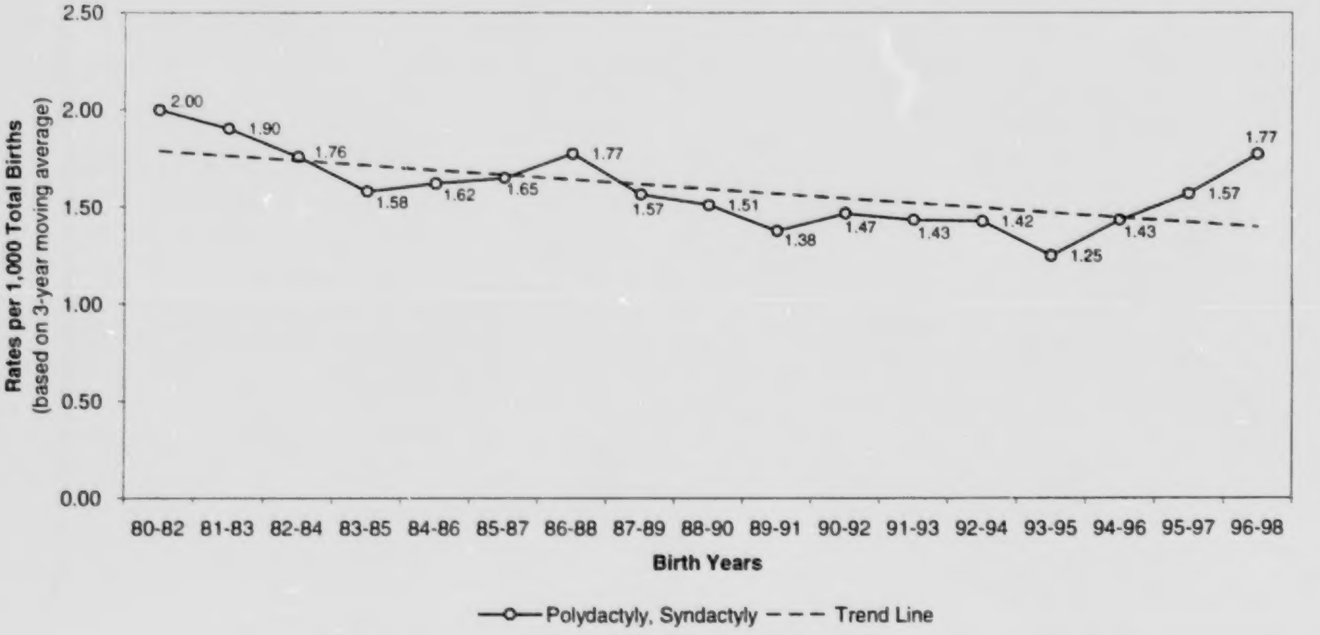


Figure 11

Trends in Selected Congenital Anomaly Rates
Limb Reductions
British Columbia, 1980 - 1998

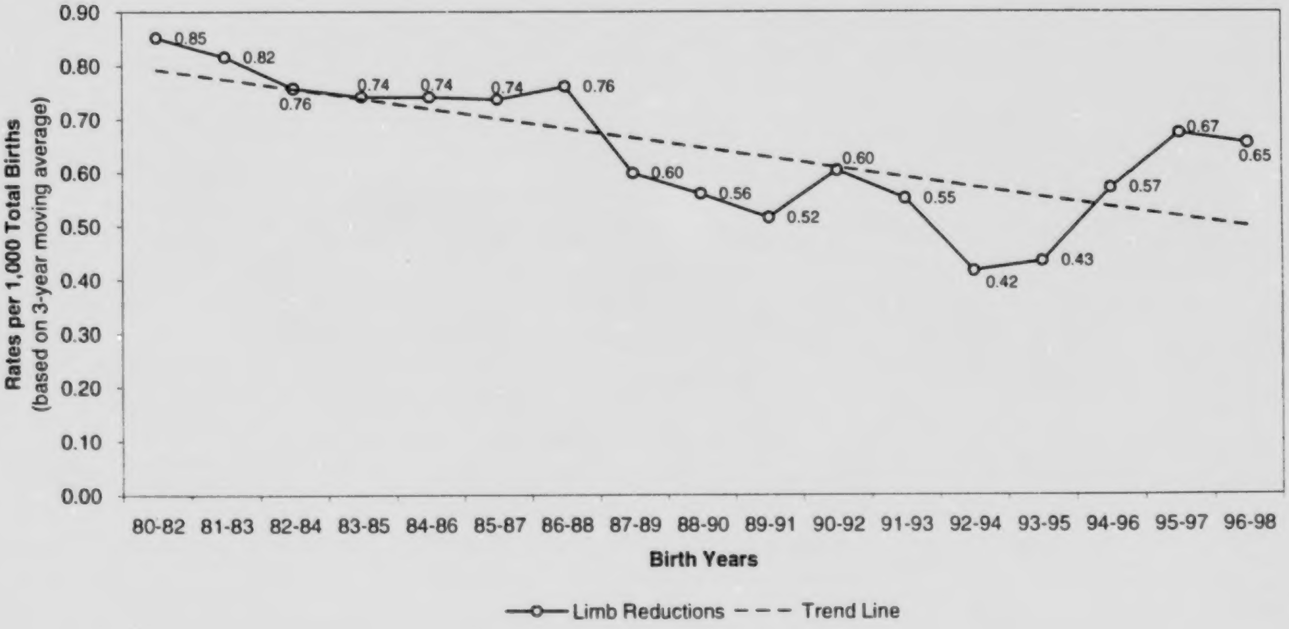
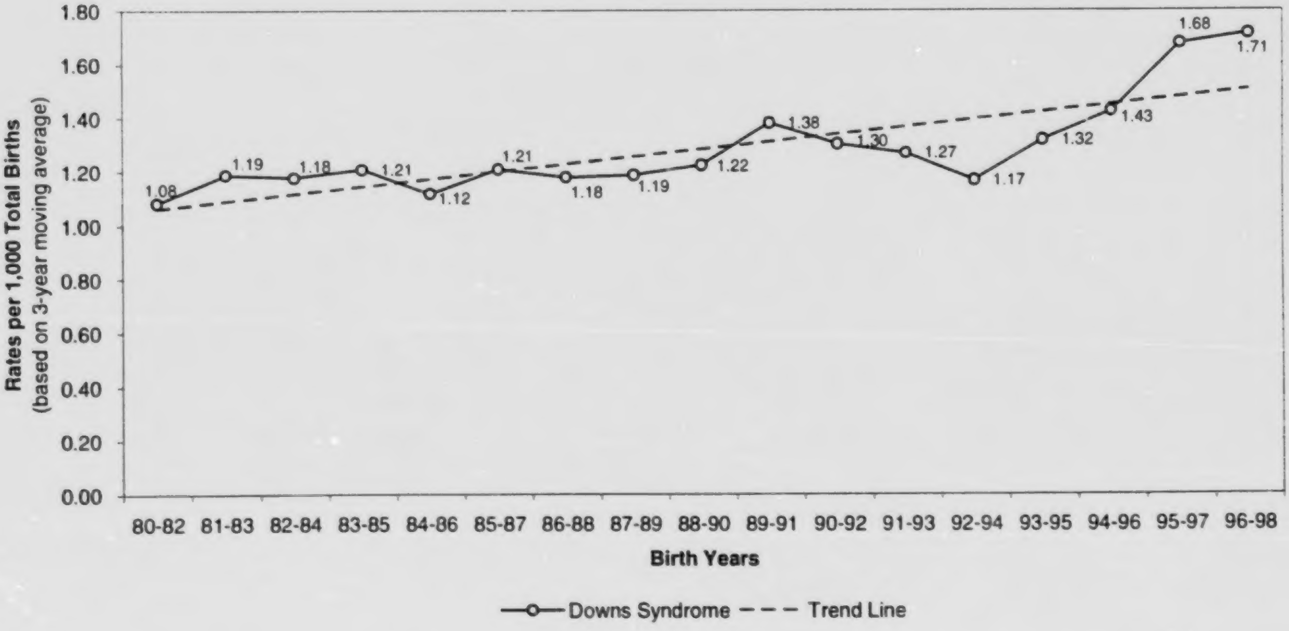


Figure 12

Trends in Selected Congenital Anomaly Rates
Downs Syndrome
British Columbia, 1980 - 1998



Section 2: Congenital Anomalies by Health Region

Introduction

The previous section of this report provided information about the congenital anomaly diagnoses reported to the Health Status Registry at the provincial level. This section, and all the following sections of this report, presents geographic information according to the Ministry of Health's revised health regions (HR) and local health areas (LHA). The boundaries of these standard data dissemination areas correspond to those of the Regional Health Boards, Community Health Services Societies, and Community Health Councils. In this section begins by presenting the 1998 birth incidence of the congenital anomalies used for birth defect monitoring using the health region of the mother's usual residence at the time she gave birth. This section continues with tables providing counts of congenital anomalies by year of birth for 1989-1998 for the province and for each Health Region. The section ends with tables presenting the birth incidence of congenital anomaly cases and diagnoses, as well as five major categories of congenital anomalies for the ten years combined at the health region level. The same categories used at the end of this section are shown again in the next section of this report in order to provide comparable information for a smaller geographic area, the local health area.

The five categories of congenital anomalies presented in this section and the next are congenital nervous system defects, congenital anomalies of heart, cleft palate and cleft lip, congenital musculoskeletal deformities, and chromosomal anomalies. The factors responsible for these defects vary widely. Congenital nervous system defects include anencephaly, neural tube defects, and microcephalus. Although there is a familial tendency in occurrences of many neural tube defects, multiple environmental factors seem to be involved, particularly with anencephaly. Microcephaly may be the result of a chromosomal abnormality, a virus, or acquired through association with maternal herpes, ischemic insults, or hypothyroidism. Congenital anomalies of the heart include some defects associated with syndromes, such as trisomy 21 and Turner's, as well as defects associated with maternal rubella, maternal anticonvulsant medication, or maternal alcohol consumption. Factors reported in the literature to be associated with cleft lip/palate have included genetic factors, corticosteroids, radiation, hypoxia in utero, maternal viral illness, and dietary influences. Chromosomal anomalies are often associated with advanced maternal age.

All the tables in this section provide information by health region using the mother's usual residence at the time she gave birth. The statistical information begins with Table 4, which provides the 1998 birth incidence of the congenital anomaly categories used for birth defect monitoring. The section continues with Tables 5 to 25, which provide counts of congenital anomalies by year of birth for 1989-1998. The section ends with Tables 26 to 32 presenting the birth incidence of congenital anomalies for the ten years combined for total congenital anomaly cases and diagnoses, and five categories of congenital anomalies. The five categories include congenital nervous system defects, congenital anomalies of heart, cleft palate and cleft lip, congenital musculoskeletal deformities, and chromosomal anomalies. Although there may be many causes for the congenital anomalies shown in this section, the tables allow the reader to assess the types and frequencies of congenital anomalies of most concern in their areas. The reader is referred to Appendix 2 for the list of birth defect monitoring categories used in Table 4 and Appendix 1 for the complete list of congenital anomaly categories and codes used in Tables 5 to 32. Caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report.

Highlights

Table 4 presents birth defects monitoring information for 1998, comparing the number of reported diagnoses of selected congenital anomalies with an expected number based on rates calculated from the reported diagnoses for 1989-1998 births. This table also provides counts by gender and health region of residence at the time of birth for the categories of congenital anomalies used for birth defects monitoring. In 1998, 464 diagnoses were reported in 373 births. Female births with hypoplastic left heart syndrome, female births with cleft lip, and total births with cleft lip were statistically higher than expected. For all other birth defects monitoring categories, the number of reported diagnoses was similar to, or even less, than expected.

Tables 5 to 25 provide counts of congenital anomalies by year of birth for 1989-1998 for the province and for each health region based on the health region of residence at the time of birth. These tables allow the reader to compare the number of reported diagnoses of various congenital anomaly categories and subcategories within a specified health region. It should be noted, however, that the number of diagnoses and cases in a specified health region is often small (as low as 20 diagnoses in 15 births in a year), although 27,675 diagnoses were reported in 18,007 births in the province over the ten year period.

Table 26 provides birth incidence rates of cases with one or more reported congenital anomaly by health region, and indicates the areas with a statistically significant ratio between the observed rate and the expected rate. The BC rate for all cases with congenital anomalies was 39.48 per 1,000 total births in 1989-1998.

There were three HRs with statistically significant high ratios between observed and expected cases with congenital anomalies (with the number of cases in parentheses, followed by the rates):

16	Vancouver	1.34	(3,164)	52.78
08	Simon Fraser	1.15	(1,779)	45.33
15	Northern Interior	1.09	(789)	42.88

There were 11 HRs with statistically significant low ratios between observed and expected cases with congenital anomalies; the three lowest ratios (with the number of cases in parentheses, followed by the rates) were:

01	East Kootenay	0.67	(220)	26.44
14	Peace Liard	0.72	(290)	28.40
20	Capital	0.73	(961)	28.97

The B.C. rate for all congenital anomaly diagnoses (Table 27) was 60.67 reported diagnoses per 1,000 total births for 1989-1998.

There were four HRs with statistically significant high ratios between observed and expected reported congenital anomaly diagnoses (with the number of diagnoses in parentheses, followed by the rates):

16	Vancouver	1.30	(4,740)	79.07
15	Northern Interior	1.09	(1,215)	66.03
08	Simon Fraser	1.08	(2,582)	65.79
07	South Fraser Valley	1.05	(4,645)	63.41

There were 12 HRs with statistically significant low ratios between observed and expected reported congenital anomaly diagnoses; the three lowest ratios (with the number of diagnoses in parentheses, followed by the rates) were:

01	East Kootenay	0.63	(317)	38.09
14	Peace Liard	0.68	(424)	41.52
20	Capital	0.74	1,484)	44.73

The B.C. rate for nervous system defects (Table 28) was 3.19 diagnoses per 1,000 total births for 1989-1998.

There were no HRs with statistically significant high ratios between observed and expected diagnoses of nervous system defects.

There were four HRs with statistically significant low ratios between observed and expected diagnoses of nervous system defects (with the number of diagnoses in parentheses, followed by the rates):

01	East Kootenay	1.56	(13)	0.49
03	North Okanagan	1.84	(21)	0.58
05	Thompson	2.12	(31)	0.67
19	Richmond	2.19	(37)	0.69

The B.C. rate for congenital heart defects (Table 29) was 8.90 diagnoses per 1,000 total births for 1989-1998.

There were three HRs with statistically significant high ratios between observed and expected diagnoses of congenital heart defects (with the number of diagnoses in parentheses, followed by the rates):

15	Northern Interior	11.68	(215)	1.31
16	Vancouver	11.46	(687)	1.29
05	Thompson	11.23	(164)	1.26

There were six HRs with statistically significant low ratios between observed and expected diagnoses of congenital heart defects; the three lowest ratios (with the number of diagnoses in parentheses, followed by the rates) were:

14	Peace Liard	4.60	(47)	0.52
01	East Kootenay	5.29	(44)	0.59
12	Cariboo	5.63	(53)	0.63

The B.C. rate for cleft palate/cleft lip (Table 30) was 2.51 diagnoses per 1,000 total births for 1989-1998.

There were only two HRs with statistically significant high ratios between observed and expected diagnoses of cleft palate/cleft lip (with the number of diagnoses in parentheses, followed by the rates):

20	Capital	1.81	(60)	0.72
15	Northern Interior	3.26	(60)	1.30

There was only one HR with statistically significant low ratios between observed and expected diagnoses of cleft palate/cleft lip (with the number of diagnoses in parentheses, followed by the rate):

09	Coast Garibaldi	1.06	(9)	0.42

The B.C. rate for musculoskeletal defects (Table 31) was 15.16 diagnoses per 1,000 total births for 1989-1998.

There were three HRs with statistically significant high ratios between observed and expected diagnoses of musculoskeletal defects (with the number of diagnoses in parentheses, followed by the rates):

16	Vancouver	21.07	(1,263)	1.39
08	Simon Fraser	19.01	(746)	1.25
07	South Fraser Valley	17.02	(1,247)	1.12

There were 10 HRs with statistically significant low ratios between observed and expected diagnoses of musculoskeletal defects; the three lowest ratios (with the number of diagnoses in parentheses, followed by the rates) were:

20	Capital	9.31	(309)	0.61
01	East Kootenay	10.33	(86)	0.68
14	Peace Liard	11.85	(121)	0.78

The B.C. rate for chromosomal anomalies (Table 32) was 2.71 diagnoses per 1,000 total births for 1989-1998.

There was only one HRs with statistically significant high ratios between observed and expected diagnoses of chromosomal anomalies, (with the number of diagnoses in parentheses, followed by the rates):

16	Vancouver	3.37	(202)	1.24

There were only two HRs with statistically significant low ratios between observed and expected diagnoses of chromosomal anomalies (with the number of diagnoses in parentheses, followed by the rate):

14	Peace Liard	1.47	(15)	0.54
13	North West	1.68	(24)	0.62

Table 4
Birth Defect Monitoring by Health Region
British Columbia, 1998

		Birth Year - 1998				Health Region (YTD Diagnosis)								
		# of Diagnosis				EK	WK	NO	SO	TH	FV	SFV	SF	CG
Diagnosis Categories	Gender	Actual	Expected	Ratio	(p)	1	2	3	4	5	6	7	8	9
Anencephalus	M	3	3.95	0.76		-	-	-	-	-	-	1	1	-
740.0	F	1	4.57	0.22		-	-	-	-	-	-	1	-	-
	T	4	9.09	0.44		-	-	-	-	-	-	2	1	-
Spina bifida	M	13	14.50	0.90		-	-	-	-	1	-	-	-	1
741.0, 741.9	F	16	20.87	0.77		2	-	-	4	-	-	3	4	-
	T	29	36.47	0.80		2	-	-	4	1	-	3	4	1
Hydrocephalus	M	8	11.77	0.68		-	1	-	-	1	-	3	-	-
742.3	F	4	9.05	0.44		-	-	-	-	-	-	1	-	3
	T	13	21.13	0.62		-	1	-	-	1	-	4	1	3
Hypoplastic left heart syndrome	M	5	6.03	0.83		-	1	-	-	-	-	1	1	-
746.7	F	8	3.34	2.40	*	-	-	-	-	1	1	1	2	-
	T	14	9.66	1.45		-	1	1	-	1	1	2	3	-
Cleft palate	M	18	18.74	0.96		1	-	-	1	-	2	1	2	-
749.0	F	22	23.06	0.95		-	2	1	-	-	-	3	4	-
	T	40	42.44	0.94		1	2	1	1	-	2	4	6	-
Cleft lip with/without cleft palate	M	52	41.81	1.24		2	-	-	1	-	3	8	13	-
749.1-749.2	F	34	20.58	1.65	*	-	-	-	5	1	3	3	3	1
	T	86	62.91	1.37	*	2	-	-	6	1	6	11	16	1
Tracheoesophageal fistula	M	6	8.10	0.74		-	2	-	-	-	-	1	-	-
750.3	F	7	4.48	1.56		-	-	-	-	-	-	3	-	-
	T	14	12.69	1.10		-	2	-	-	-	-	4	-	-
Atresia/stenosis of large intestine	M	8	10.17	0.79		-	-	-	1	-	-	1	-	-
751.2	F	11	7.72	1.43		-	-	-	1	-	1	1	-	-
	T	21	18.19	1.15		-	-	-	2	-	1	3	-	-
Hypospadias & epispadias	M	86	96.33	0.89		1	4	1	5	3	5	14	12	2
752.6	F	1	0.19	5.25		-	-	-	-	-	-	1	-	-
	T	87	97.86	0.89		1	4	1	5	3	5	15	12	2
Renal agenesis	M	14	12.62	1.11		-	2	-	1	-	-	1	-	-
753.0	F	7	8.00	0.87		-	-	1	-	-	-	3	-	-
	T	23	21.03	1.09		-	2	1	1	-	-	4	-	-
Limb reduction deformities	M	17	12.43	1.37		1	1	1	-	2	-	3	2	-
755.2-755.4	F	7	11.63	0.60		-	-	-	1	-	1	2	2	-
	T	25	24.44	1.02		1	1	1	1	2	1	6	4	-
Anomalies of skull & face bones	M	26	25.52	1.02		-	2	-	3	1	-	3	5	-
756.0	F	16	16.29	0.98		-	1	-	-	-	1	4	2	-
	T	43	43.48	0.99		-	3	-	3	1	1	7	7	1
Downs syndrome	M	30	32.49	0.92		2	-	-	-	-	-	9	-	3
758.0	F	32	24.87	1.29		-	-	1	2	-	1	9	4	-
	T	65	59.50	1.09		2	-	1	2	-	1	20	4	3
Total of the above Diagnoses	M	286	294.46	0.97		7	13	2	12	8	10	46	36	6
	F	166	154.66	1.07		2	3	3	13	2	8	35	21	4
	T	464	458.91	1.01		9	16	6	25	10	18	85	58	11
Total Cases	M	224				5	8	2	10	8	7	38	24	6
	F	138				2	1	3	7	2	7	26	18	4
	T	373				7	9	6	17	10	14	68	43	11
Total Births	M	22,005				394	370	541	1,007	666	1,572	3,962	1,908	398
	F	21,100				354	340	549	1,001	724	1,511	3,661	1,848	412
	T	43,134				748	710	1,092	2,008	1,390	3,083	7,632	3,758	810

Notes: Birth Defect Monitoring is based on usual address at time of birth from the Health Status Registry.
Gender unknown is included in totals. Non-B.C. residents are excluded. Number of expected diagnosis are based on observed diagnosis for birth events of B.C. residents during 1989 to 1998 inclusive.
Total are of total diagnosis, individuals may have more than one diagnosis.
*Statistical testing indicates that actual number of diagnosis are significantly different from the expected (p<0.05, two tailed).
+ Denotes significance based on less than five diagnosis.
N.S. - Not Stated.

Table 4
Birth Defect Monitoring by Health Region
British Columbia, 1998

		Health Region (YTD Diagnosis)											
		CVI	UI	CA	NW	PL	NI	VA	BU	NS	RI	CRD	
Diagnosis Categories	Gender	10	11	12	13	14	15	16	17	18	19	20	N.S.
Anencephalus	M	-	-	-	-	-	-	-	-	1	-	-	-
740.0	F	-	-	-	-	-	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-	-	1	-	-	-
Spina bifida	M	3	-	-	2	-	4	-	-	2	-	-	-
741.0, 741.9	F	-	-	-	-	-	-	-	-	1	-	1	1
	T	3	-	-	2	-	4	-	-	3	-	1	1
Hydrocephalus	M	-	-	-	-	-	-	1	-	-	-	1	1
742.3	F	-	-	-	-	-	-	-	-	-	-	-	-
		-	-	-	-	-	-	1	-	-	-	1	1
Hypoplastic left heart syndrome	M	-	-	-	-	-	-	-	-	-	2	-	-
746.7	F	-	-	-	-	-	-	2	-	-	1	-	-
	T	-	-	-	-	-	-	2	-	-	3	-	-
Cleft palate	M	-	-	-	-	-	2	2	2	-	1	4	-
749.0	F	2	2	-	-	-	1	5	1	-	-	1	-
	T	2	2	-	-	-	3	7	3	-	1	5	-
Cleft lip with/without cleft palate	M	4	2	-	4	-	1	7	-	-	4	3	-
749.1-749.2	F	2	-	-	2	1	6	6	-	-	-	1	-
	T	6	2	-	6	1	7	13	-	-	4	4	-
Tracheoesophageal fistula	M	-	-	-	-	1	-	2	-	-	-	-	-
750.3	F	-	1	-	-	-	-	2	1	-	-	-	-
	T	-	1	-	-	1	-	5	1	-	-	-	-
Atresia/stenosis of large intestine	M	1	-	1	-	-	3	-	-	-	-	1	-
751.2	F	2	1	-	-	-	-	2	-	1	-	2	-
	T	3	1	1	-	-	4	2	-	1	-	3	-
Hypospadias & epispadias	M	4	1	2	3	1	5	8	5	2	3	5	-
752.6	F	-	-	-	-	-	-	-	-	-	-	-	-
	T	4	1	2	3	1	5	8	5	2	3	5	-
Renal agenesis	M	1	1	-	2	-	3	-	1	-	1	1	-
753.0	F	2	-	-	-	-	-	1	-	-	-	-	-
	T	3	1	-	2	-	4	2	1	-	1	1	-
Limb reduction deformities	M	1	-	-	-	-	-	3	-	-	-	3	-
755.2-755.4	F	-	-	-	-	1	-	-	-	-	-	-	-
	T	1	-	-	-	1	-	3	-	-	-	3	-
Anomalies of skull & face bones	M	2	-	1	1	-	-	3	1	1	2	1	-
756.0	F	1	-	1	-	1	-	4	1	-	-	-	-
	T	3	-	2	1	1	-	7	2	1	2	1	-
Downs syndrome	M	2	1	1	1	-	1	6	1	-	-	2	1
758.0	F	-	2	-	-	-	-	2	2	5	1	1	2
	T	2	3	1	1	-	1	8	3	6	1	3	3
Total of the above Diagnoses	M	18	5	5	13	2	19	32	10	6	13	21	2
	F	9	6	1	2	3	7	24	5	7	2	6	3
	T	27	11	6	15	5	28	58	15	14	15	27	5
Total Cases	M	14	5	5	10	2	12	26	9	5	9	17	2
	F	8	5	1	2	3	5	21	5	7	2	6	3
	T	22	10	6	12	5	18	49	14	13	11	23	5
Total Births	M	1,110	615	443	628	485	854	2,802	1,085	831	850	1,484	-
	F	1,090	643	442	547	440	818	2,755	950	812	800	1,403	-
	T	2,201	1,259	885	1,176	925	1,673	5,563	2,036	1,647	1,651	2,887	-

Table 5
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

B.C. Total

											1989-1998	
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Rate**
Nervous System Defects 740 -742	130	137	119	147	122	149	197	188	142	124	1,455	3.19
anencephalus & similar defects 740.0-740.2	13	9	8	11	5	11	14	8	7	4	90	0.20
neural tube defects 741.0, 741.9, 742.0	60	55	38	71	36	36	34	43	26	30	429	0.94
hydrocephalus 742.3	18	39	22	10	17	25	30	24	14	13	212	0.46
other	39	34	51	55	64	77	119	112	95	77	723	1.59
Anomalies of Eye, 743	31	51	42	26	31	43	70	54	48	42	438	0.96
Anomalies of Ear, Face, Neck 744	59	65	82	62	46	97	93	118	113	97	832	1.82
Anomalies of Heart 745.0 -746.9	217	324	317	280	290	405	505	593	565	565	4,061	8.90
transposition of great vessels 745.1	20	17	21	15	13	14	33	30	34	36	233	0.51
tetralogy of Fallot 745.2	20	23	18	20	14	13	19	18	17	20	182	0.40
ventricular septal defect 745.4	38	67	92	72	81	105	110	165	142	131	1,003	2.20
hypoplastic left heart syndrome 746.7	4	15	8	10	8	9	16	16	11	14	111	0.24
other	135	201	178	163	174	264	327	364	361	364	2,531	5.55
Other Circulatory System Anomalies 747.0 -747.9	134	172	165	165	149	285	357	513	471	435	2,846	6.24
patent ductus arteriosus 747.0	52	76	55	59	52	117	165	267	245	231	1,319	2.89
Anomalies of Respiratory System 748	62	72	91	62	55	73	73	109	99	77	773	1.69
Cleft Palate/Cleft Lip 749.0-749.2	98	132	111	107	100	117	91	125	136	126	1,143	2.51
Anomalies of Upper Alimentary Tract 750	59	68	67	70	65	105	114	135	126	91	900	1.97
tracheoesophageal fistula/atresia/stenosis 750.3	11	17	11	10	9	20	18	10	17	14	137	0.30
pyloric stenosis 750.5	38	32	38	41	28	21	30	30	28	26	312	0.68
other	10	19	18	19	28	64	66	95	81	51	451	0.99
Other Anomalies of Digestive System 751	72	67	70	82	64	72	100	104	100	105	836	1.83
Anomalies of Genital Organs 752	187	174	205	227	234	299	277	446	342	230	2,621	5.75
Anomalies of Urinary System 753	108	149	157	198	177	162	166	191	180	198	1,686	3.70
renal agenesis 753.0	17	19	21	38	17	29	18	25	15	23	222	0.49
cystic kidney disease 753.1	14	18	19	25	30	15	21	40	27	27	236	0.52
other	77	112	116	135	130	118	127	126	138	148	1,227	2.69
Congenital Musculoskeletal Deformities 754-756	481	675	633	606	551	750	595	981	901	744	6,917	15.16
cong. dislocated hip 754.3	89	238	209	198	177	252	137	344	272	212	2,128	4.67
lordosis/scoliosis 754.2	3	3	1	5	4	3	-	4	2	2	27	0.06
varus, valgus, clubfoot 754.5-754.7	97	117	114	124	129	150	123	201	195	146	1,396	3.06
polydactyly, syndactyly 755.0-755.1	61	62	63	77	58	64	53	84	79	75	676	1.48
limb reductions 755.2-755.4	14	23	33	27	16	15	30	35	28	25	246	0.54
chondro/ osteo dystrophies 754.6-756.5	12	12	11	8	19	7	15	12	12	15	123	0.27
other	205	220	202	167	148	259	237	301	312	289	2,320	5.09
Anomalies of the Integument 757 , 228.0	68	66	59	82	69	176	94	159	159	96	1,028	2.25
hemangioma 228.0	9	7	11	8	4	24	18	31	29	10	151	0.33
other	59	59	48	74	65	152	76	128	130	86	877	1.92
Chromosomal Anomalies 758	88	111	112	110	92	121	133	163	169	139	1,238	2.71
Downs syndrome 758.0	52	64	71	44	60	59	66	75	90	65	646	1.42
other	36	47	38	64	32	62	67	88	79	74	587	1.29
Multiple & Multiple System Anomalies 759.7-759.8	46	44	50	45	32	68	55	49	62	55	506	1.11
Other and Unspecified Anomalies 759.0-759.6,759.9	21	33	40	24	26	37	61	49	52	52	395	0.87
Total Diagnoses	1,861	2,340	2,320	2,293	2,103	2,959	2,981	3,977	3,665	3,176	27,675	60.67
(Rate /1,000 total births)	(42.3)	(51.2)	(50.8)	(49.5)	(45.5)	(62.7)	(63.3)	(86.0)	(81.9)	(73.6)		
Total Cases	1,306	1,609	1,608	1,621	1,496	1,959	1,770	2,544	2,261	1,833	18,007	39.48
(Rate /1,000 total births)	(29.7)	(35.2)	(35.2)	(35.0)	(32.4)	(41.5)	(37.6)	(55.0)	(50.6)	(42.5)		
Total Births	43,951	45,688	45,635	46,305	46,217	47,162	47,057	46,246	44,726	43,134	456,121	

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.

Table 6
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

01 East Kootenay

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	-	1	1	3	1	2	2	-	1	2	13	26.5	0.49	-	1.56
anencephalus & similar defects 740.0-740.2	-	-	-	-	-	-	-	-	-	-	-	1.6	-		-
neural tube defects 741.0, 741.9, 742.0	-	1	1	2	-	-	1	-	1	2	8	7.8	1.02		0.96
hydrocephalus 742.3	-	-	-	-	-	-	1	-	-	-	1	3.9	0.26		0.12
other	-	-	-	1	1	2	-	-	-	-	4	13.2	0.30	(-)	0.48
Anomalies of Eye, 743	1	-	1	-	-	3	1	-	-	2	8	8.0	1.00		0.96
Anomalies of Ear, Face, Neck 744	-	1	1	4	-	1	2	-	-	-	9	15.2	0.59		1.08
Anomalies of Heart 745.0 -746.9	4	3	3	5	2	7	3	5	8	4	44	74.1	0.59	-	5.29
transposition of great vessels 745.1	-	-	-	-	-	-	-	-	-	-	-	4.3	-		-
tetralogy of Fallot 745.2	-	-	-	-	-	1	-	-	-	-	1	3.3	0.30		0.12
ventricular septal defect 745.4	1	-	2	2	-	-	2	-	2	-	9	18.3	0.49	-	1.08
hypoplastic left heart syndrome 746.7	-	-	-	-	-	1	-	-	-	-	1	2.0	0.49		0.12
other	3	3	1	3	2	5	1	5	6	4	33	46.2	0.71		3.97
Other Circulatory System Anomalies 747.0 -747.9	5	1	1	3	2	2	2	5	2	7	30	51.9	0.58	-	3.60
patent ductus arteriosus 747.0	2	1	1	1	-	2	1	3	1	2	14	24.1	0.58	-	1.68
Anomalies of Respiratory System 748	2	1	2	2	1	1	1	1	-	-	11	14.1	0.78		1.32
Cleft Palate/Cleft Lip 749.0-749.2	3	6	-	2	-	-	1	3	1	3	19	20.9	0.91		2.28
Anomalies of Upper Alimentary Tract 750	2	3	1	-	1	2	2	-	1	-	12	16.4	0.73		1.44
tracheoesophageal fistula/atresia/stenosis 750.3	-	1	-	-	-	1	-	-	-	-	2	2.5	0.80		0.24
pyloric stenosis 750.5	1	-	1	-	-	-	-	-	-	-	2	5.7	0.35		0.24
other	1	2	-	-	1	1	2	-	1	-	8	8.2	0.97		0.96
Other Anomalies of Digestive System 751	1	1	1	1	-	-	-	-	-	-	4	15.3	0.26	(-)	0.48
Anomalies of Genital Organs 752	4	2	2	7	3	3	2	6	3	1	33	47.8	0.69	-	3.97
Anomalies of Urinary System 753	3	2	-	-	-	1	1	2	-	-	9	30.8	0.29	-	1.08
renal agenesis 753.0	-	-	-	-	-	-	-	-	-	-	-	4.1	-		-
cystic kidney disease 753.1	-	-	-	-	-	-	-	-	-	-	-	4.3	-		-
other	3	2	-	-	-	1	1	2	-	-	9	22.4	0.40	-	1.08
Congenital Musculoskeletal Deformities 754-756	6	8	9	10	8	5	14	12	5	9	86	126.2	0.68	-	10.33
cong. dislocated hip 754.3	2	2	3	2	1	-	4	2	1	1	18	38.8	0.46	-	2.16
lordosis/scoliosis 754.2	-	1	-	-	-	-	-	1	-	-	2	0.5	4.06	(+)	0.24
varus, valgus, clubfoot 754.5-754.7	1	2	2	2	2	1	2	1	-	4	17	25.5	0.67		2.04
polydactyly, syndactyly 755.0-755.1	1	1	2	2	3	-	3	-	2	1	15	12.3	1.22		1.80
limb reductions 755.2-755.4	-	-	-	-	-	-	1	2	-	1	4	4.5	0.89		0.48
chondro/ osteo dystrophies 754.6-756.5	-	-	-	-	-	-	-	-	-	1	1	2.2	0.45		0.12
other	2	2	2	4	2	4	4	6	2	1	29	42.3	0.69	-	3.48
Anomalies of the Integument 757 , 228.0	2	-	-	3	-	1	-	3	3	-	12	18.8	0.64		1.44
hemangioma 228.0	-	-	-	1	-	-	-	-	2	-	3	2.8	1.09		0.36
other	2	-	-	2	-	1	-	3	1	-	9	16.0	0.56		1.08
Chromosomal Anomalies 758	2	1	1	1	1	1	1	4	3	4	19	22.6	0.84		2.28
Downs syndrome 758.0	1	-	1	1	1	1	-	2	3	2	12	11.8	1.02		1.44
other	1	1	-	-	-	-	1	2	-	2	7	10.7	0.65		0.84
Multiple & Multiple System Anomalies 759.7-759.8	1	1	-	-	-	2	-	2	-	-	6	9.2	0.65		0.72
Other and Unspecified Anomalies 759.0-759.6,759.9	-	-	1	-	1	-	-	-	-	-	2	7.2	0.28		0.24
Total Diagnoses	36	31	24	41	20	31	32	43	27	32	317	504.9	0.63	-	38.09
(Rate /1,000 total births)	(39.6)	(35.7)	(26.6)	(48.2)	(24.7)	(35.8)	(40.9)	(55.5)	(33.3)	(42.8)					
Total Cases	28	22	20	26	15	21	21	24	22	21	220	328.5	0.67	-	26.44
(Rate /1,000 total births)	(30.8)	(25.3)	(22.2)	(30.6)	(18.5)	(24.2)	(26.8)	(31.0)	(27.1)	(28.1)					
Total Births	908	868	901	850	811	867	783	775	811	748	8,322				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 7
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

02 West Kootenay - Boundary

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	3	3	4	-	-	3	3	-	6	2	24	25.7	0.93		2.98
anencephalus & similar defects 740.0-740.2	1	-	1	-	-	-	-	-	1	-	3	1.6	1.89		0.37
neural tube defects 741.0, 741.9, 742.0	1	3	3	-	-	2	-	-	1	-	10	7.6	1.32		1.24
hydrocephalus 742.3	-	-	-	-	-	-	1	-	1	1	3	3.7	0.80		0.37
other	1	-	-	-	-	1	2	-	3	1	8	12.8	0.63		0.99
Anomalies of Eye, 743	-	-	1	-	-	1	-	1	-	-	3	7.7	0.39		0.37
Anomalies of Ear, Face, Neck 744	3	-	1	2	-	1	1	1	-	1	10	14.7	0.68		1.24
Anomalies of Heart 745.0 -746.9	6	2	2	4	4	10	24	-	8	10	70	71.6	0.98		8.70
transposition of great vessels 745.1	-	-	-	1	-	-	1	-	2	-	4	4.1	0.97		0.50
tetralogy of Fallot 745.2	1	-	1	-	-	-	2	-	-	-	4	3.2	1.25		0.50
ventricular septal defect 745.4	1	1	1	1	1	4	5	-	3	1	18	17.7	1.02		2.24
hypoplastic left heart syndrome 746.7	1	-	-	-	-	1	1	-	-	1	4	2.0	2.04		0.50
other	3	1	-	2	3	5	15	-	3	8	40	44.7	0.90		4.97
Other Circulatory System Anomalies 747.0 -747.9	3	3	4	2	-	6	3	4	10	4	39	50.2	0.78		4.85
patent ductus arteriosus 747.0	1	-	-	1	-	2	1	2	4	2	13	23.3	0.56	-	1.62
Anomalies of Respiratory System 748	2	-	2	1	-	2	2	1	1	-	11	13.6	0.81		1.37
Cleft Palate/Cleft Lip 749.0-749.2	4	2	-	1	2	4	2	3	2	2	22	20.2	1.09		2.73
Anomalies of Upper Alimentary Tract 750	-	-	1	-	1	4	2	1	-	2	11	15.9	0.69		1.37
tracheoesophageal fistula/atresia/stenosis 750.3	-	-	-	-	1	-	-	-	-	2	3	2.4	1.24		0.37
pyloric stenosis 750.5	-	-	1	-	-	2	-	-	-	-	3	5.5	0.55		0.37
other	-	-	-	-	-	2	2	1	-	-	5	8.0	0.63		0.62
Other Anomalies of Digestive System 751	3	1	3	1	3	4	5	-	1	3	24	14.7	1.63	+	2.98
Anomalies of Genital Organs 752	4	1	2	5	4	5	3	5	3	5	37	46.2	0.80		4.60
Anomalies of Urinary System 753	2	4	-	1	1	3	4	-	1	6	22	29.7	0.74		2.73
renal agenesis 753.0	-	-	-	-	-	-	-	-	-	2	2	3.9	0.51		0.25
cystic kidney disease 753.1	-	-	-	-	-	1	-	-	1	-	2	4.2	0.48		0.25
other	2	4	-	1	1	2	4	-	-	4	18	21.6	0.83		2.24
Congenital Musculoskeletal Deformities 754-756	11	12	11	12	7	20	4	7	4	9	97	122.0	0.79	-	12.05
cong. dislocated hip 754.3	3	2	4	3	-	5	-	2	2	1	22	37.5	0.59	-	2.73
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	0.5	-		-
varus, valgus, clubfoot 754.5-754.7	2	3	4	2	2	5	-	3	2	2	25	24.6	1.02		3.11
polydactyly, syndactyly 755.0-755.1	2	2	1	1	-	1	-	-	-	-	7	11.9	0.59		0.87
limb reductions 755.2-755.4	1	1	1	2	-	1	1	-	-	1	8	4.3	1.84		0.99
chondro/ osteo dystrophies 754.6-756.5	-	1	-	1	-	-	-	-	-	-	2	2.2	0.92		0.25
other	3	3	1	3	5	8	3	2	-	5	33	40.9	0.81		4.10
Anomalies of the Integument 757 , 228.0	1	1	-	2	2	2	3	-	2	1	14	18.1	0.77		1.74
hemangioma 228.0	-	-	-	-	1	-	2	-	-	-	3	2.7	1.13		0.37
other	1	1	-	2	1	2	1	-	2	1	11	15.5	0.71		1.37
Chromosomal Anomalies 758	1	2	4	5	2	3	2	-	2	-	21	21.8	0.96		2.61
Downs syndrome 758.0	1	1	3	2	2	-	2	-	1	-	12	11.4	1.05		1.49
other	-	1	1	3	-	3	-	-	1	-	9	10.4	0.87		1.12
Multiple & Multiple System Anomalies 759.7-759.8	-	-	-	4	1	5	-	-	-	1	11	8.9	1.23		1.37
Other and Unspecified Anomalies 759.0-759.6,759.9	-	1	-	-	1	-	1	-	1	2	6	7.0	0.86		0.75
Total Diagnoses	43	32	35	40	28	73	59	23	41	48	422	488.2	0.86	-	52.44
(Rate /1,000 total births)	(51.1)	(37.9)	(38.2)	(49.7)	(33.2)	(88.8)	(73.5)	(30.7)	(57.6)	(67.6)					
Total Cases	27	24	26	26	18	36	25	18	27	24	251	317.7	0.79	-	31.19
(Rate /1,000 total births)	(32.1)	(28.4)	(28.4)	(32.3)	(21.4)	(43.8)	(31.1)	(24.0)	(37.9)	(33.8)					
Total Births	841	844	917	805	843	822	803	750	712	710	8,047				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 8
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

03 North Okanagan

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	1	3	-	-	5	2	6	1	2	1	21	36.5	0.58	-	1.84
anencephalus & similar defects 740.0-740.2	-	1	-	-	-	1	1	-	-	-	3	2.3	1.33		0.26
neural tube defects 741.0, 741.9, 742.0	-	-	-	-	3	-	1	-	-	-	4	10.7	0.37	(-)	0.35
hydrocephalus 742.3	1	2	-	-	-	-	1	-	-	-	4	5.3	0.75		0.35
other	-	-	-	-	2	1	3	1	2	1	10	18.1	0.55		0.88
Anomalies of Eye, 743	1	1	-	-	1	2	1	-	1	-	7	11.0	0.64		0.61
Anomalies of Ear, Face, Neck 744	3	5	1	3	1	3	1	3	1	3	24	20.8	1.15		2.10
Anomalies of Heart 745.0 -746.9	2	13	8	6	2	7	8	12	21	7	86	101.7	0.85		7.53
transposition of great vessels 745.1	-	-	-	-	-	-	-	1	-	-	1	5.8	0.17	(-)	0.09
tetralogy of Fallot 745.2	-	2	1	-	-	1	-	1	1	1	7	4.6	1.54		0.61
ventricular septal defect 745.4	1	2	2	1	-	2	2	5	7	-	22	25.1	0.88		1.93
hypoplastic left heart syndrome 746.7	-	-	-	-	-	-	-	-	1	1	2	2.8	0.72		0.18
other	1	9	5	5	2	4	6	5	12	5	54	63.4	0.85		4.73
Other Circulatory System Anomalies 747.0 -747.9	-	5	5	-	2	8	2	4	8	11	45	71.3	0.63	-	3.94
patent ductus arteriosus 747.0	-	2	2	-	-	3	2	3	6	4	22	33.0	0.67		1.93
Anomalies of Respiratory System 748	1	5	-	1	1	4	2	2	2	3	21	19.4	1.08		1.84
Cleft Palate/Cleft Lip 749.0-749.2	4	4	-	5	1	1	-	10	-	1	26	28.6	0.91		2.28
Anomalies of Upper Alimentary Tract 750	-	1	-	-	1	4	4	3	3	3	19	22.5	0.84		1.66
tracheoesophageal fistula/atresia/stenosis 750.3	-	-	-	-	-	-	-	-	1	-	1	3.4	0.29		0.09
pyloric stenosis 750.5	-	1	-	-	-	-	-	-	1	2	4	7.8	0.51		0.35
other	-	-	-	-	1	4	4	3	1	1	14	11.3	1.24		1.23
Other Anomalies of Digestive System 751	1	4	1	2	2	-	2	1	2	-	15	20.9	0.72		1.31
Anomalies of Genital Organs 752	4	2	-	10	6	7	2	16	4	5	56	65.7	0.85		4.90
Anomalies of Urinary System 753	1	3	-	1	7	5	5	10	-	3	35	42.2	0.83		3.06
renal agenesis 753.0	-	1	-	-	1	1	2	1	-	1	7	5.6	1.26		0.61
cystic kidney disease 753.1	-	-	-	-	2	1	-	4	-	-	7	5.9	1.18		0.61
other	1	2	-	1	4	3	3	5	-	2	21	30.7	0.68		1.84
Congenital Musculoskeletal Deformities 754-756	23	11	7	10	11	19	7	19	18	13	138	173.3	0.80	-	12.08
cong. dislocated hip 754.3	-	2	1	1	4	3	3	7	7	2	30	53.3	0.56	-	2.63
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	0.7	-		-
varus, valgus, clubfoot 754.5-754.7	5	2	1	3	2	4	-	1	3	6	27	35.0	0.77		2.36
polydactyly, syndactyly 755.0-755.1	6	-	1	5	-	2	1	2	1	-	18	16.9	1.06		1.58
limb reductions 755.2-755.4	1	-	-	-	-	2	-	-	1	1	5	6.2	0.81		0.44
chondro/ osteo dystrophies 754.6-756.5	-	-	-	-	-	-	-	-	-	-	-	3.1	-		-
other	11	7	4	1	5	8	3	9	6	4	58	58.1	1.00		5.08
Anomalies of the Integument 757 , 228.0	2	1	-	1	-	3	2	5	5	3	22	25.8	0.85		1.93
hemangioma 228.0	-	-	-	-	-	-	2	1	1	-	4	3.8	1.06		0.35
other	2	1	-	1	-	3	-	4	4	3	18	22.0	0.82		1.58
Chromosomal Anomalies 758	2	-	4	1	-	3	2	2	4	3	21	31.0	0.68		1.84
Downs syndrome 758.0	2	-	3	-	-	-	2	1	2	1	11	16.2	0.68		0.96
other	-	-	-	1	-	3	-	1	2	2	9	14.7	0.61		0.79
Multiple & Multiple System Anomalies 759.7-759.8	1	1	-	-	1	2	2	-	-	1	8	12.7	0.63		0.70
Other and Unspecified Anomalies 759.0-759.6,759.9	1	-	-	-	1	1	-	-	2	1	6	9.9	0.61		0.53
Total Diagnoses	47	59	26	40	42	71	46	88	73	58	550	693.4	0.79	-	48.13
(Rate /1,000 total births)	(42.4)	(51.7)	(22.5)	(35.7)	(34.9)	(59.1)	(38.9)	(74.6)	(69.6)	(53.1)					
Total Cases	35	32	18	34	30	48	33	53	43	39	365	451.2	0.81	-	31.94
(Rate /1,000 total births)	(31.6)	(28.0)	(15.6)	(30.4)	(24.9)	(40.0)	(27.9)	(45.0)	(41.0)	(35.7)					
Total Births	1,108	1,141	1,153	1,119	1,204	1,201	1,182	1,179	1,049	1,092	11,428				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 7
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

04 South Okanagan Similkameen

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	5	5	4	7	2	4	14	10	5	7	63	67.8	0.93		2.96
anencephalus & similar defects 740.0-740.2	1	-	1	-	-	-	-	-	2	-	4	4.2	0.95		0.19
neural tube defects 741.0, 741.9, 742.0	1	3	1	4	-	-	3	-	-	4	16	20.0	0.80		0.75
hydrocephalus 742.3	1	2	-	-	1	1	2	3	-	-	10	9.9	1.01		0.47
other	2	-	2	3	1	3	9	7	3	3	33	33.7	0.98		1.55
Anomalies of Eye, 743	1	2	3	2	4	4	6	4	-	2	28	20.4	1.37		1.32
Anomalies of Ear, Face, Neck 744	2	1	4	3	3	4	6	6	7	5	41	38.8	1.06		1.93
Anomalies of Heart 745.0 -746.9	6	15	12	9	11	33	22	19	29	18	174	189.4	0.92		8.18
transposition of great vessels 745.1	2	2	2	-	1	1	2	-	2	-	12	10.9	1.10		0.56
tetralogy of Fallot 745.2	-	-	-	2	-	-	1	2	1	1	7	8.5	0.82		0.33
ventricular septal defect 745.4	-	3	4	3	2	7	5	11	6	6	47	46.8	1.00		2.21
hypoplastic left heart syndrome 746.7	1	1	1	-	1	-	1	-	-	-	5	5.2	0.97		0.24
other	3	9	5	4	7	25	13	6	20	11	103	118.0	0.87		4.84
Other Circulatory System Anomalies 747.0 -747.9	7	7	11	7	9	16	12	17	17	14	117	132.7	0.88		5.50
patent ductus arteriosus 747.0	2	3	4	1	3	5	5	9	9	8	49	61.5	0.80		2.30
Anomalies of Respiratory System 748	1	1	3	4	2	7	5	7	2	2	34	36.0	0.94		1.60
Cleft Palate/Cleft Lip 749.0-749.2	2	3	7	3	7	3	4	8	6	7	50	53.3	0.94		2.35
Anomalies of Upper Alimentary Tract 750	-	-	2	2	-	1	9	12	3	2	31	42.0	0.74		1.46
tracheoesophageal fistula/atresia/stenosis 750.3	-	-	-	1	-	1	2	1	1	-	6	6.4	0.94		0.28
pyloric stenosis 750.5	-	-	1	-	-	-	-	4	-	-	5	14.5	0.34	-	0.24
other	-	-	1	1	-	-	7	7	2	2	20	21.0	0.95		0.94
Other Anomalies of Digestive System 751	3	2	2	6	4	4	5	6	8	9	49	39.0	1.26		2.30
Anomalies of Genital Organs 752	4	4	10	5	16	16	21	16	12	13	117	122.2	0.96		5.50
Anomalies of Urinary System 753	4	8	2	6	4	3	9	11	8	4	59	78.6	0.75	-	2.77
renal agenesis 753.0	1	1	1	-	-	2	1	2	-	1	9	10.4	0.87		0.42
cystic kidney disease 753.1	-	1	-	1	-	-	1	3	-	-	6	11.0	0.55		0.28
other	3	6	1	5	4	1	7	6	8	3	44	57.2	0.77		2.07
Congenital Musculoskeletal Deformities 754-756	18	19	23	18	15	34	39	45	25	25	261	322.5	0.81	-	12.27
cong. dislocated hip 754.3	3	7	8	5	6	10	5	9	8	7	68	99.2	0.69	-	3.20
lordosis/scoliosis 754.2	-	1	-	-	-	-	-	-	-	-	1	1.3	0.79		0.05
varus, valgus, clubfoot 754.5-754.7	5	1	4	6	4	6	14	3	5	4	52	65.1	0.80		2.44
polydactyly, syndactyly 755.0-755.1	2	2	4	3	1	9	1	4	3	1	30	31.5	0.95		1.41
limb reductions 755.2-755.4	-	-	2	1	-	-	1	8	1	1	14	11.5	1.22		0.66
chondro/ osteo dystrophies 754.6-756.5	1	1	-	-	1	-	-	-	-	-	3	5.7	0.52		0.14
other	7	7	5	3	3	9	18	21	8	12	93	108.2	0.86		4.37
Anomalies of the Integument 757 , 228.0	2	5	1	2	3	15	8	8	8	6	58	47.9	1.21		2.73
hemangioma 228.0	1	1	1	1	-	3	-	2	4	2	15	7.0	2.13	+	0.71
other	1	4	-	1	3	12	8	6	4	4	43	40.9	1.05		2.02
Chromosomal Anomalies 758	4	1	5	4	4	11	3	9	12	5	58	57.7	1.00		2.73
Downs syndrome 758.0	3	-	3	3	4	8	2	3	6	2	34	30.1	1.13		1.60
other	1	1	2	1	-	3	1	6	6	3	24	27.4	0.88		1.13
Multiple & Multiple System Anomalies 759.7-759.8	1	3	4	1	-	3	2	2	3	1	20	23.6	0.85		0.94
Other and Unspecified Anomalies 759.0-759.6,759.9	1	4	2	-	2	-	3	2	2	1	17	18.4	0.92		0.80
Total Diagnoses	61	80	95	79	86	158	168	182	147	121	1,177	1,290.4	0.91	-	55.34
(Rate /1,000 total births)	(32.8)	(39.6)	(47.3)	(36.4)	(38.4)	(69.7)	(70.4)	(83.4)	(69.1)	(60.3)					
Total Cases	41	49	54	61	64	100	98	109	87	68	731	839.6	0.87	-	34.37
(Rate /1,000 total births)	(22.1)	(24.3)	(26.9)	(28.1)	(28.6)	(44.1)	(41.1)	(50.0)	(40.9)	(33.9)					
Total Births	1,857	2,019	2,010	2,172	2,239	2,268	2,387	2,181	2,127	2,008	21,268				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).

(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.

Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.

HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 8
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

05 Thompson

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	2	-	3	3	5	2	3	6	1	6	31	46.6	0.67	-	2.12
anencephalus & similar defects 740.0-740.2	-	-	-	-	-	-	-	2	-	-	2	2.9	0.69		0.14
neural tube defects 741.0, 741.9, 742.0	1	-	1	1	2	-	2	-	-	1	8	13.7	0.58		0.55
hydrocephalus 742.3	-	-	1	1	-	-	-	1	-	1	4	6.8	0.59		0.27
other	1	-	1	1	3	2	1	3	1	4	17	23.2	0.73		1.16
Anomalies of Eye, 743	1	2	-	1	1	-	4	-	-	1	10	14.0	0.71		0.68
Anomalies of Ear, Face, Neck 744	2	4	1	3	2	1	4	6	1	2	26	26.6	0.98		1.78
Anomalies of Heart 745.0 -746.9	10	10	4	2	18	23	21	30	28	18	164	130.1	1.26	+	11.23
transposition of great vessels 745.1	1	-	-	-	-	-	1	-	2	-	4	7.5	0.54		0.27
tetralogy of Fallot 745.2	1	1	1	1	-	-	2	-	1	-	7	5.8	1.20		0.48
ventricular septal defect 745.4	4	-	-	1	4	7	5	12	5	5	43	32.1	1.34		2.94
hypoplastic left heart syndrome 746.7	-	-	-	-	-	-	-	1	-	1	2	3.6	0.56		0.14
other	4	9	3	-	14	16	13	17	20	12	108	81.1	1.33	+	7.39
Other Circulatory System Anomalies 747.0 -747.9	11	8	2	5	3	14	23	30	23	13	132	91.2	1.45	+	9.03
patent ductus arteriosus 747.0	4	6	1	2	1	9	8	21	12	9	73	42.2	1.73	+	5.00
Anomalies of Respiratory System 748	1	2	4	1	2	2	2	3	3	2	22	24.8	0.89		1.51
Cleft Palate/Cleft Lip 749.0-749.2	4	2	7	3	9	3	1	2	6	1	38	36.6	1.04		2.60
Anomalies of Upper Alimentary Tract 750	2	3	-	-	-	5	4	3	4	3	24	28.8	0.83		1.64
tracheoesophageal fistula/atresia/stenosis 750.3	-	1	-	-	-	-	1	-	-	-	2	4.4	0.46		0.14
pyloric stenosis 750.5	2	2	-	-	-	-	-	2	3	1	10	10.0	1.00		0.68
other	-	-	-	-	-	5	3	1	1	2	12	14.4	0.83		0.82
Other Anomalies of Digestive System 751	3	6	-	1	5	1	1	2	3	1	23	26.8	0.86		1.57
Anomalies of Genital Organs 752	11	6	10	4	6	13	15	18	10	12	105	84.0	1.25	+	7.19
Anomalies of Urinary System 753	4	-	3	3	-	2	8	6	3	3	32	54.0	0.59	-	2.19
renal agenesis 753.0	-	-	-	1	-	1	1	-	-	-	3	7.1	0.42		0.21
cystic kidney disease 753.1	-	-	-	-	-	-	2	-	1	-	3	7.6	0.40		0.21
other	4	-	3	2	-	1	5	6	2	3	26	39.3	0.66	-	1.78
Congenital Musculoskeletal Deformities 754-756	22	18	13	25	14	24	21	35	18	35	225	221.6	1.02		15.40
cong. dislocated hip 754.3	9	4	6	9	3	1	7	9	4	8	60	68.2	0.88		4.11
lordosis/scoliosis 754.2	-	-	-	1	1	1	-	-	-	-	3	0.9	3.47	(+)	0.21
varus, valgus, clubfoot 754.5-754.7	3	2	2	2	3	7	5	6	7	5	42	44.7	0.94		2.87
polydactyly, syndactyly 755.0-755.1	1	4	1	3	2	2	1	3	1	7	25	21.7	1.15		1.71
limb reductions 755.2-755.4	1	-	-	4	-	2	2	2	1	2	14	7.9	1.78	+	0.96
chondro/ osteo dystrophies 754.6-756.5	-	1	-	-	1	1	-	1	-	-	4	3.9	1.02		0.27
other	8	7	4	6	4	10	6	14	5	13	77	74.3	1.04		5.27
Anomalies of the Integument 757 , 228.0	3	7	2	2	-	6	5	8	4	4	41	32.9	1.25		2.81
hemangioma 228.0	1	2	1	-	-	-	1	1	1	-	7	4.8	1.45		0.48
other	2	5	1	2	-	6	4	7	3	4	34	28.1	1.21		2.33
Chromosomal Anomalies 758	-	5	2	5	2	3	7	6	2	2	34	39.7	0.86		2.33
Downs syndrome 758.0	-	4	2	2	2	2	2	1	-	-	15	20.7	0.72		1.03
other	-	1	-	3	-	1	5	5	2	2	19	18.8	1.01		1.30
Multiple & Multiple System Anomalies 759.7-759.8	1	-	2	-	-	3	1	2	2	2	13	16.2	0.80		0.89
Other and Unspecified Anomalies 759.0-759.6,759.9	-	1	2	-	1	1	-	4	2	1	12	12.7	0.95		0.82
Total Diagnoses	77	74	55	58	68	103	120	161	110	106	932	886.5	1.05		63.79
(Rate /1,000 total births)	(52.8)	(49.7)	(37.5)	(40.4)	(46.9)	(70.3)	(79.8)	(107.0)	(76.0)	(76.3)					
Total Cases	54	53	43	47	41	63	71	97	70	65	604	576.8	1.05		41.34
(Rate /1,000 total births)	(37.0)	(35.6)	(29.3)	(32.8)	(28.3)	(43.0)	(47.2)	(64.5)	(48.4)	(46.8)					
Total Births	1,458	1,490	1,467	1,435	1,450	1,465	1,504	1,504	1,447	1,390	14,610				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 9
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

06 Fraser Valley

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	9	15	6	5	8	15	17	15	14	2	106	98.1	1.08		3.45
anencephalus & similar defects 740.0-740.2	1	-	-	-	2	1	3	1	-	-	8	6.1	1.32		0.26
neural tube defects 741.0, 741.9, 742.0	6	6	2	3	3	7	6	3	3	-	39	28.9	1.35		1.27
hydrocephalus 742.3	-	7	1	1	-	1	2	4	1	-	17	14.3	1.19		0.55
other	2	2	3	1	3	6	6	7	10	2	42	48.7	0.86		1.37
Anomalies of Eye, 743	1	4	1	1	1	1	11	4	6	6	36	29.5	1.22		1.17
Anomalies of Ear, Face, Neck 744	5	4	3	7	4	6	9	3	12	3	56	56.1	1.00		1.82
Anomalies of Heart 745.0 -746.9	7	15	19	28	27	21	24	47	33	39	260	273.8	0.95		8.45
transposition of great vessels 745.1	1	-	2	3	-	2	1	2	2	6	19	15.7	1.21		0.62
tetralogy of Fallot 745.2	1	1	2	2	1	3	-	1	2	1	14	12.3	1.14		0.46
ventricular septal defect 745.4	-	4	6	7	9	2	7	9	9	7	60	67.6	0.89		1.95
hypoplastic left heart syndrome 746.7	-	-	-	-	-	-	-	-	-	1	1	7.5	0.13	(-)	0.03
other	5	10	9	16	17	14	16	35	20	24	166	170.6	0.97		5.40
Other Circulatory System Anomalies 747.0 -747.9	6	8	6	15	6	18	21	41	23	26	170	191.9	0.89		5.53
patent ductus arteriosus 747.0	3	4	2	5	3	8	8	19	10	13	75	88.9	0.84		2.44
Anomalies of Respiratory System 748	-	4	4	10	6	5	5	10	5	2	51	52.1	0.98		1.66
Cleft Palate/Cleft Lip 749.0-749.2	10	10	4	11	9	9	5	4	11	8	81	77.1	1.05		2.63
Anomalies of Upper Alimentary Tract 750	4	3	3	5	2	8	8	7	5	10	55	60.7	0.91		1.79
tracheoesophageal fistula/atresia/stenosis 750.3	1	-	1	1	-	1	1	-	1	-	6	9.2	0.65		0.20
pyloric stenosis 750.5	3	1	1	2	-	1	-	4	-	4	16	21.0	0.76		0.52
other	-	2	1	2	2	6	7	3	4	6	33	30.4	1.09		1.07
Other Anomalies of Digestive System 751	2	5	5	2	5	3	7	15	5	2	51	56.4	0.90		1.66
Anomalies of Genital Organs 752	9	25	12	11	18	22	30	29	19	10	185	176.7	1.05		6.02
Anomalies of Urinary System 753	6	11	15	18	17	8	6	13	12	6	112	113.7	0.99		3.64
renal agenesis 753.0	2	2	3	4	2	1	1	3	3	-	21	15.0	1.40		0.68
cystic kidney disease 753.1	2	2	1	2	4	-	-	5	-	-	16	15.9	1.01		0.52
other	2	7	11	12	11	7	5	5	9	6	75	82.7	0.91		2.44
Congenital Musculoskeletal Deformities 754-756	19	21	24	35	25	57	44	62	48	32	367	466.3	0.79	-	11.93
cong. dislocated hip 754.3	1	7	6	5	4	19	9	18	12	10	91	143.5	0.63	-	2.96
lordosis/scoliosis 754.2	-	-	-	-	-	1	-	-	-	-	1	1.8	0.55		0.03
varus, valgus, clubfoot 754.5-754.7	6	6	4	13	5	13	11	14	14	9	95	94.1	1.01		3.09
polydactyly, syndactyly 755.0-755.1	2	2	1	3	5	5	6	6	7	4	41	45.6	0.90		1.33
limb reductions 755.2-755.4	-	-	1	2	1	1	3	3	-	1	12	16.6	0.72		0.39
chondro/ osteo dystrophies 754.6-756.5	1	-	1	2	2	1	-	2	1	-	10	8.3	1.21		0.33
other	9	6	11	10	8	17	15	19	14	8	117	156.4	0.75	-	3.80
Anomalies of the Integument 757 , 228.0	2	3	5	8	2	8	6	9	7	5	55	69.3	0.79		1.79
hemangioma 228.0	-	-	-	1	-	3	3	3	1	-	11	10.2	1.08		0.36
other	2	3	5	7	2	5	3	6	6	5	44	59.1	0.74	-	1.43
Chromosomal Anomalies 758	6	8	9	5	5	5	12	20	13	4	87	83.5	1.04		2.83
Downs syndrome 758.0	3	6	8	4	4	4	4	11	8	1	53	43.6	1.22		1.72
other	3	2	1	1	1	1	8	9	5	3	34	39.6	0.86		1.11
Multiple & Multiple System Anomalies 759.7-759.8	4	2	2	3	4	6	3	3	10	-	37	34.1	1.08		1.20
Other and Unspecified Anomalies 759.0-759.6,759.9	-	1	2	4	2	2	6	2	3	2	24	26.6	0.90		0.78
Total Diagnoses	90	139	120	168	141	194	214	284	226	157	1,733	1,865.9	0.93	-	56.35
(Rate /1,000 total births)	(35.2)	(48.9)	(40.9)	(52.4)	(44.7)	(59.5)	(65.5)	(87.1)	(71.0)	(50.9)					
Total Cases	60	93	82	96	89	146	132	175	126	87	1,086	1,214.0	0.89	-	35.31
(Rate /1,000 total births)	(23.5)	(32.7)	(27.9)	(29.9)	(28.2)	(44.8)	(40.4)	(53.7)	(39.6)	(28.2)					
Total Births	2,554	2,845	2,937	3,209	3,154	3,260	3,265	3,261	3,184	3,083	30,752				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 10
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

07 South Fraser Valley

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	9	19	14	30	20	18	27	30	26	24	217	233.7	0.93		2.96
anencephalus & similar defects 740.0-740.2	2	1	1	5	1	1	4	1	-	2	18	14.5	1.25		0.25
neural tube defects 741.0, 741.9, 742.0	5	7	4	20	7	4	3	15	5	4	74	68.9	1.07		1.01
hydrocephalus 742.3	1	3	3	1	4	6	4	1	2	4	29	34.0	0.85		0.40
other	1	8	6	4	8	7	16	13	19	14	96	116.1	0.83		1.31
Anomalies of Eye, 743	8	5	7	2	4	5	3	5	3	10	52	70.3	0.74	-	0.71
Anomalies of Ear, Face, Neck 744	9	5	16	7	11	19	12	15	19	15	128	133.6	0.96		1.75
Anomalies of Heart 745.0 -746.9	38	47	77	65	34	30	85	118	89	109	692	652.2	1.06		9.45
transposition of great vessels 745.1	2	3	6	2	-	1	8	10	7	10	49	37.4	1.31		0.67
tetralogy of Fallot 745.2	4	1	4	4	2	1	3	3	2	1	25	29.2	0.86		0.34
ventricular septal defect 745.4	4	9	17	11	11	7	16	27	22	28	152	161.1	0.94		2.07
hypoplastic left heart syndrome 746.7	-	4	-	5	1	2	4	4	1	2	23	17.8	1.29		0.31
other	28	30	50	43	20	19	54	74	57	68	443	406.5	1.09		6.05
Other Circulatory System Anomalies 747.0 -747.9	20	28	33	28	28	25	53	71	73	63	422	457.1	0.92		5.76
patent ductus arteriosus 747.0	8	14	12	13	15	11	24	30	32	31	190	211.8	0.90		2.59
Anomalies of Respiratory System 748	7	14	19	12	8	13	14	22	18	18	145	124.2	1.17		1.98
Cleft Palate/Cleft Lip 749.0-749.2	11	26	15	13	18	20	13	20	14	15	165	183.6	0.90		2.25
Anomalies of Upper Alimentary Tract 750	11	11	20	15	14	19	37	18	29	22	196	144.5	1.36	+	2.68
tracheoesophageal fistula/atresia/stenosis 750.3	-	1	2	2	2	-	9	1	2	4	23	22.0	1.05		0.31
pyloric stenosis 750.5	10	8	12	11	9	4	14	2	5	6	81	50.1	1.62	+	1.11
other	1	2	6	2	3	15	14	15	22	12	92	72.4	1.27	+	1.26
Other Anomalies of Digestive System 751	12	11	12	25	10	9	18	19	15	25	156	134.3	1.16		2.13
Anomalies of Genital Organs 752	32	27	23	48	22	41	48	69	55	36	401	421.0	0.95		5.47
Anomalies of Urinary System 753	23	31	42	52	30	16	30	33	32	31	320	270.8	1.18	+	4.37
renal agenesis 753.0	4	5	2	11	2	2	5	8	1	4	44	35.7	1.23		0.60
cystic kidney disease 753.1	4	6	11	3	5	-	4	5	9	5	52	37.9	1.37	+	0.71
other	15	20	28	38	23	14	21	20	22	22	223	197.1	1.13		3.04
Congenital Musculoskeletal Deformities 754-756	80	124	103	112	97	119	95	194	185	138	1,247	1,110.9	1.12	+	17.02
cong dislocated hip 754.3	14	29	34	34	32	45	26	84	58	44	400	341.8	1.17	+	5.46
lordosis/scoliosis 754.2	1	-	-	3	1	-	-	1	-	-	6	4.3	1.38		0.08
varus, valgus, clubfoot 754.5-754.7	17	23	12	19	15	16	14	38	27	30	211	224.2	0.94		2.88
polydactyly, syndactyly 755.0-755.1	11	14	12	14	10	9	12	15	19	16	132	108.6	1.22	+	1.80
limb reductions 755.2-755.4	2	5	4	2	6	1	2	13	5	6	46	39.5	1.16		0.63
chondro/ osteo dystrophies 754.6-756.5	1	2	-	2	-	2	2	-	5	2	16	19.8	0.81		0.22
other	34	51	41	38	33	46	39	43	71	40	436	372.6	1.17	+	5.95
Anomalies of the Integument 757 , 228.0	10	4	8	18	14	23	11	11	23	11	133	165.1	0.81	-	1.82
hemangioma 228.0	1	-	1	1	2	2	2	2	5	-	16	24.3	0.66		0.22
other	9	4	7	17	12	21	9	9	18	11	117	140.9	0.83	-	1.60
Chromosomal Anomalies 758	16	22	20	18	15	13	20	29	23	36	212	198.8	1.07		2.89
Downs syndrome 758.0	8	8	12	5	13	5	11	11	11	20	104	103.8	1.00		1.42
other	8	14	8	12	2	8	9	18	12	16	107	94.3	1.13		1.46
Multiple & Multiple System Anomalies 759.7-759.8	4	7	12	6	3	13	8	9	12	7	81	81.3	1.00		1.11
Other and Unspecified Anomalies 759.0-759.6,759.9	3	4	8	4	4	10	11	12	14	8	78	63.4	1.23		1.06
Total Diagnoses	293	385	429	455	332	393	485	675	630	568	4,645	4,444.9	1.05	+	63.41
(Rate /1,000 total births)	(46.0)	(54.2)	(60.5)	(60.9)	(44.9)	(52.0)	(62.8)	(90.5)	(84.2)	(74.4)					
Total Cases	216	253	264	296	225	283	286	403	365	303	2,894	2,892.1	1.00		39.50
(Rate /1,000 total births)	(33.9)	(35.6)	(37.2)	(39.6)	(30.5)	(37.5)	(37.0)	(54.0)	(48.8)	(39.7)					
Total Births	6,363	7,099	7,091	7,471	7,386	7,555	7,723	7,459	7,479	7,632	73,258				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 11
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

08 Simon Fraser

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	13	8	12	16	14	12	12	19	21	17	144	125.2	1.15		3.67
anencephalus & similar defects 740.0-740.2	1	-	1	-	-	-	-	-	-	1	3	7.7	0.39		0.08
neural tube defects 741.0, 741.9, 742.0	6	4	3	5	4	-	3	7	3	4	39	36.9	1.06		0.99
hydrocephalus 742.3	3	3	2	3	1	2	-	-	3	1	18	18.2	0.99		0.46
other	3	1	6	8	9	10	9	12	15	11	84	62.2	1.35	+	2.14
Anomalies of Eye, 743	2	3	3	4	3	2	4	1	6	4	32	37.7	0.85		0.82
Anomalies of Ear, Face, Neck 744	3	2	8	3	-	7	9	15	15	9	71	71.6	0.99		1.81
Anomalies of Heart 745.0 -746.9	15	26	28	15	13	42	48	25	22	47	281	349.4	0.80	-	7.16
transposition of great vessels 745.1	2	3	2	-	-	2	5	1	1	2	18	20.0	0.90		0.46
tetralogy of Fallot 745.2	1	4	1	-	-	2	1	2	1	2	14	15.7	0.89		0.36
ventricular septal defect 745.4	6	3	8	6	3	11	7	10	7	10	71	86.3	0.82		1.81
hypoplastic left heart syndrome 746.7	-	-	1	-	1	-	-	-	-	3	5	9.6	0.52		0.13
other	6	16	16	9	9	27	35	12	13	30	173	217.8	0.79	-	4.41
Other Circulatory System Anomalies 747.0 -747.9	10	11	12	16	14	31	49	40	21	43	247	244.9	1.01		6.29
patent ductus arteriosus 747.0	3	4	6	4	3	12	18	19	13	21	103	113.5	0.91		2.62
Anomalies of Respiratory System 748	4	3	8	3	6	3	7	10	17	8	69	66.5	1.04		1.76
Cleft Palate/Cleft Lip 749.0-749.2	8	10	8	5	7	8	8	6	16	22	98	98.3	1.00		2.50
Anomalies of Upper Alimentary Tract 750	3	10	5	7	5	12	6	22	20	12	102	77.4	1.32	+	2.60
tracheoesophageal fistula/atresia/stenosis 750.3	1	2	1	-	1	4	1	2	2	-	14	11.8	1.19		0.36
pyloric stenosis 750.5	1	4	1	4	2	1	1	5	4	3	26	26.8	0.97		0.66
other	1	4	3	3	2	7	4	15	14	9	62	38.8	1.60	+	1.58
Other Anomalies of Digestive System 751	8	8	6	5	6	9	10	4	14	5	75	71.9	1.04		1.91
Anomalies of Genital Organs 752	15	17	23	29	26	33	21	53	39	28	284	225.5	1.26	+	7.24
Anomalies of Urinary System 753	3	19	15	24	17	21	17	15	17	9	157	145.1	1.08		4.00
renal agenesis 753.0	-	-	3	3	3	2	2	1	3	-	17	19.1	0.89		0.43
cystic kidney disease 753.1	-	2	2	3	6	2	1	2	2	-	20	20.3	0.98		0.51
other	3	17	10	18	8	17	14	12	12	9	120	105.6	1.14		3.06
Congenital Musculoskeletal Deformities 754-756	49	45	50	57	48	106	61	108	117	105	746	595.1	1.25	+	19.01
cong. dislocated hip 754.3	5	11	13	13	11	55	27	46	54	35	270	183.1	1.47	+	6.88
lordosis/scoliosis 754.2	1	-	-	-	-	-	-	1	1	-	3	2.3	1.29		0.08
varus, valgus, clubfoot 754.5-754.7	10	10	6	11	16	15	10	24	20	19	141	120.1	1.17		3.59
polydactyly, syndactyly 755.0-755.1	4	2	5	8	6	6	2	12	6	5	56	58.2	0.96		1.43
limb reductions 755.2-755.4	1	2	3	7	-	4	3	-	2	4	26	21.2	1.23		0.66
chondro/ osteo dystrophies 754.6-756.5	-	1	2	1	1	-	-	3	-	2	10	10.6	0.94		0.25
other	28	19	21	17	14	26	19	22	34	40	240	199.6	1.20	+	6.12
Anomalies of the Integument 757 , 228.0	7	4	3	4	6	31	4	22	26	12	119	88.4	1.35	+	3.03
hemangioma 228.0	-	-	-	-	1	3	1	4	4	3	16	13.0	1.23		0.41
other	7	4	3	4	5	28	3	18	22	9	103	75.5	1.37	+	2.62
Chromosomal Anomalies 758	3	6	12	8	5	13	10	8	14	10	89	106.5	0.84		2.27
Downs syndrome 758.0	1	5	8	1	3	4	4	6	7	4	43	55.6	0.77		1.10
other	2	1	4	7	2	9	6	2	7	6	46	50.5	0.91		1.17
Multiple & Multiple System Anomalies 759.7-759.8	3	1	5	6	3	8	4	2	4	4	40	43.5	0.92		1.02
Other and Unspecified Anomalies 759.0-759.6,759.9	2	3	4	4	1	3	4	-	1	6	28	34.0	0.82		0.71
Total Diagnoses	148	176	202	206	174	341	274	350	370	341	2,582	2,381.2	1.08	+	65.79
(Rate /1,000 total births)	(39.6)	(45.7)	(51.7)	(51.2)	(44.1)	(84.1)	(67.9)	(86.8)	(94.9)	(90.7)					
Total Cases	116	125	148	148	133	217	159	254	263	216	1,779	1,549.3	1.15	+	45.33
(Rate /1,000 total births)	(31.0)	(32.5)	(37.9)	(36.8)	(33.7)	(53.5)	(39.4)	(63.0)	(67.5)	(57.5)					
Total Births	3,740	3,852	3,909	4,024	3,942	4,057	4,033	4,031	3,899	3,758	39,245				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 12

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

09 Coast Garibaldi

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	6	3	5	2	1	2	6	1	-	9	35	27.1	1.29		4.11
anencephalus & similar defects 740.0-740.2	2	-	-	-	-	-	-	-	-	-	2	1.7	1.19		0.23
neural tube defects 741.0, 741.9, 742.0	-	1	1	-	-	2	-	-	-	1	5	8.0	0.62		0.59
hydrocephalus 742.3	2	2	2	-	1	-	-	-	-	3	10	4.0	2.53	+	1.17
other	2	-	2	2	-	-	6	1	-	5	18	13.5	1.33		2.11
Anomalies of Eye, 743	2	-	-	-	-	1	2	1	-	-	6	8.2	0.73		0.70
Anomalies of Ear, Face, Neck 744	-	2	10	-	-	2	1	2	-	3	20	15.5	1.29		2.35
Anomalies of Heart 745.0 -746.9	6	3	7	3	4	9	13	11	8	11	75	75.8	0.99		8.81
transposition of great vessels 745.1	-	-	-	-	1	-	3	-	-	-	4	4.3	0.92		0.47
tetralogy of Fallot 745.2	1	-	-	1	-	-	-	-	-	1	3	3.4	0.88		0.35
ventricular septal defect 745.4	2	1	3	2	2	4	2	1	3	5	25	18.7	1.34		2.94
hypoplastic left heart syndrome 746.7	-	1	-	-	-	-	-	1	-	-	2	2.1	0.97		0.23
other	3	1	4	-	1	5	8	9	5	5	41	47.2	0.87		4.82
Other Circulatory System Anomalies 747.0 -747.9	4	4	4	3	5	3	8	15	6	11	63	53.1	1.19		7.40
patent ductus arteriosus 747.0	1	2	1	-	-	-	3	5	4	5	21	24.6	0.85		2.47
Anomalies of Respiratory System 748	2	1	-	2	-	2	1	2	3	3	16	14.4	1.11		1.88
Cleft Palate/Cleft Lip 749.0-749.2	1	1	2	-	1	1	-	2	-	1	9	21.3	0.42	-	1.06
Anomalies of Upper Alimentary Tract 750	2	5	2	1	2	4	2	2	3	-	23	16.8	1.37		2.70
tracheoesophageal fistula/atresia/stenosis 750.3	-	1	-	1	-	-	-	1	1	-	4	2.6	1.56		0.47
pyloric stenosis 750.5	1	4	2	-	1	-	1	-	2	-	11	5.8	1.89	+	1.29
other	1	-	-	-	1	4	1	1	-	-	8	8.4	0.95		0.94
Other Anomalies of Digestive System 751	4	5	1	-	-	-	3	2	1	1	17	15.6	1.09		2.00
Anomalies of Genital Organs 752	8	4	4	4	3	5	1	7	5	5	46	48.9	0.94		5.40
Anomalies of Urinary System 753	6	-	2	5	1	4	4	5	3	9	39	31.5	1.24		4.58
renal agenesis 753.0	1	-	-	3	-	-	-	-	1	-	5	4.1	1.21		0.59
cystic kidney disease 753.1	-	-	-	-	1	2	1	-	-	1	5	4.4	1.14		0.59
other	5	-	2	2	-	2	3	5	2	8	29	22.9	1.27		3.41
Congenital Musculoskeletal Deformities 754-756	8	12	12	10	11	12	9	14	21	6	115	129.1	0.89		13.51
cong. dislocated hip 754.3	4	3	2	5	3	4	-	4	2	2	29	39.7	0.73		3.41
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	0.5	-		-
varus, valgus, clubfoot 754.5-754.7	-	-	3	2	3	2	2	3	9	-	24	26.0	0.92		2.82
polydactyly, syndactyly 755.0-755.1	2	2	1	-	-	3	2	4	4	-	18	12.6	1.43		2.11
limb reductions 755.2-755.4	-	-	-	-	-	-	1	-	-	-	1	4.6	0.22		0.12
chondro/ osteo dystrophies 754.6-756.5	-	1	-	-	1	-	-	-	-	1	3	2.3	1.31		0.35
other	2	6	6	3	4	3	4	3	6	3	40	43.3	0.92		4.70
Anomalies of the Integument 757 , 228.0	5	1	2	-	3	3	2	1	3	-	20	19.2	1.04		2.35
hemangioma 228.0	2	-	1	-	-	-	-	-	-	-	3	2.8	1.06		0.35
other	3	1	1	-	3	3	2	1	3	-	17	16.4	1.04		2.00
Chromosomal Anomalies 758	2	2	1	1	-	1	3	-	1	4	15	23.1	0.65		1.76
Downs syndrome 758.0	1	2	1	-	-	-	1	-	-	3	8	12.1	0.66		0.94
other	1	-	-	1	-	1	2	-	1	1	7	11.0	0.64		0.82
Multiple & Multiple System Anomalies 759.7-759.8	-	-	-	1	2	-	1	-	-	2	6	9.4	0.64		0.70
Other and Unspecified Anomalies 759.0-759.6,759.9	1	-	-	-	2	1	-	-	-	1	5	7.4	0.68		0.59
Total Diagnoses	57	43	52	32	35	50	56	65	54	66	510	516.4	0.99		59.92
(Rate /1,000 total births)	(70.9)	(51.7)	(61.8)	(35.6)	(41.6)	(54.6)	(65.0)	(76.4)	(63.2)	(81.5)					
Total Cases	37	35	38	31	29	41	28	40	36	34	349	336.0	1.04		41.01
(Rate /1,000 total births)	(46.0)	(42.1)	(45.1)	(34.4)	(34.5)	(44.8)	(32.5)	(47.0)	(42.1)	(42.0)					
Total Births	804	831	842	900	841	916	861	851	855	810	8,511				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).

(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.

Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.

HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 13
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

10 Central Vancouver Island

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	4	8	7	4	7	7	9	14	11	10	81	78.3	1.03		3.30
anencephalus & similar defects 740.0-740.2	-	-	-	-	-	-	-	-	1	-	1	4.8	0.21		0.04
neural tube defects 741.0, 741.9, 742.0	3	2	4	3	2	2	4	5	1	3	29	23.1	1.26		1.18
hydrocephalus 742.3	-	4	1	-	-	2	-	1	3	-	11	11.4	0.96		0.45
other	1	2	2	1	5	3	5	8	6	7	40	38.9	1.03		1.63
Anomalies of Eye, 743	2	5	4	-	2	5	3	3	4	2	30	23.6	1.27		1.22
Anomalies of Ear, Face, Neck 744	1	2	3	5	5	6	12	6	8	7	55	44.8	1.23		2.24
Anomalies of Heart 745.0 -746.9	5	18	13	18	11	14	42	18	40	19	198	218.6	0.91		8.07
transposition of great vessels 745.1	1	2	2	1	1	-	3	2	-	-	12	12.5	0.96		0.49
tetralogy of Fallot 745.2	1	2	-	-	1	-	1	-	1	1	7	9.8	0.71		0.29
ventricular septal defect 745.4	2	1	1	5	4	6	9	4	6	3	41	54.0	0.76		1.67
hypoplastic left heart syndrome 746.7	-	1	1	1	-	1	1	-	1	-	6	6.0	1.00		0.24
other	1	12	9	11	5	7	28	12	32	15	132	136.2	0.97		5.38
Other Circulatory System Anomalies 747.0 -747.9	5	5	8	6	7	23	22	28	25	16	145	153.2	0.95		5.91
patent ductus arteriosus 747.0	3	2	3	-	2	7	11	14	16	7	65	71.0	0.92		2.65
Anomalies of Respiratory System 748	2	2	7	5	-	5	1	3	9	6	40	41.6	0.96		1.63
Cleft Palate/Cleft Lip 749.0-749.2	1	6	5	3	4	4	8	7	3	8	49	61.5	0.80		2.00
Anomalies of Upper Alimentary Tract 750	5	4	6	4	4	5	9	12	5	2	56	48.4	1.16		2.28
tracheoesophageal fistula/atresia/stenosis 750.3	2	-	3	-	1	2	2	-	2	-	12	7.4	1.63		0.49
pyloric stenosis 750.5	2	2	3	3	2	-	2	3	-	-	17	16.8	1.01		0.69
other	1	2	-	1	1	3	5	9	3	2	27	24.3	1.11		1.10
Other Anomalies of Digestive System 751	2	1	4	5	1	3	7	6	1	8	38	45.0	0.84		1.55
Anomalies of Genital Organs 752	14	2	7	11	9	15	15	19	15	13	120	141.1	0.85		4.89
Anomalies of Urinary System 753	9	6	6	16	4	13	4	10	3	11	82	90.7	0.90		3.34
renal agenesis 753.0	2	-	2	3	1	2	-	-	-	3	13	11.9	1.09		0.53
cystic kidney disease 753.1	2	1	1	3	1	1	-	2	-	2	13	12.7	1.02		0.53
other	5	5	3	10	2	10	4	8	3	6	56	66.0	0.85		2.28
Congenital Musculoskeletal Deformities 754-756	20	24	27	22	28	26	43	61	48	36	335	372.3	0.90		13.65
cong. dislocated hip 754.3	7	6	3	-	3	4	6	8	8	7	52	114.5	0.45	-	2.12
lordosis/scoliosis 754.2	-	-	1	1	-	-	-	-	1	-	3	1.5	2.06		0.12
varus, valgus, clubfoot 754.5-754.7	5	9	4	4	11	6	8	17	10	8	82	75.1	1.09		3.34
polydactyly, syndactyly 755.0-755.1	1	3	2	4	4	3	7	8	3	2	37	36.4	1.02		1.51
limb reductions 755.2-755.4	1	1	2	-	1	-	4	1	-	1	11	13.2	0.83		0.45
chondro/ osteo dystrophies 754.6-756.5	-	-	-	-	2	-	2	3	-	-	7	6.6	1.06		0.29
other	6	5	15	13	7	13	16	24	26	18	143	124.9	1.15		5.83
Anomalies of the Integument 757 , 228.0	2	-	1	5	2	9	8	11	5	4	47	55.3	0.85		1.91
hemangioma 228.0	-	-	1	-	-	1	1	1	1	-	5	8.1	0.62		0.20
other	2	-	-	5	2	8	7	10	4	4	42	47.2	0.89		1.71
Chromosomal Anomalies 758	-	4	1	7	9	6	6	13	9	8	63	66.6	0.95		2.57
Downs syndrome 758.0	-	2	1	4	4	3	6	10	3	2	35	34.8	1.01		1.43
other	-	2	-	3	5	3	-	3	6	6	28	31.6	0.89		1.14
Multiple & Multiple System Anomalies 759.7-759.8	4	3	3	1	1	3	4	2	7	4	32	27.2	1.18		1.30
Other and Unspecified Anomalies 759.0-759.6,759.9	2	2	3	2	-	2	4	4	4	2	25	21.3	1.18		1.02
Total Diagnoses	78	92	105	114	94	146	197	217	197	156	1,396	1,489.4	0.94	-	56.87
(Rate /1,000 total births)	(32.8)	(37.1)	(41.7)	(45.1)	(37.5)	(55.8)	(79.3)	(86.4)	(84.8)	(70.9)					
Total Cases	59	54	70	78	83	97	112	146	106	90	895	969.1	0.92	-	36.46
(Rate /1,000 total births)	(24.8)	(21.8)	(27.8)	(30.9)	(33.1)	(37.1)	(45.1)	(58.1)	(45.6)	(40.9)					
Total Births	2,381	2,478	2,521	2,526	2,505	2,615	2,484	2,512	2,324	2,201	24,547				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 14

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

11 Upper Island/Central coast

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	4	3	3	6	-	3	6	9	2	1	37	44.3	0.84		2.67
anencephalus & similar defects 740.0-740.2	-	-	1	1	-	-	1	-	-	-	3	2.7	1.10		0.22
neural tube defects 741.0, 741.9, 742.0	2	-	2	2	-	2	2	1	1	-	12	13.1	0.92		0.86
hydrocephalus 742.3	-	2	-	-	-	1	2	-	-	-	5	6.5	0.78		0.36
other	2	1	-	3	-	-	1	8	1	1	17	22.0	0.77		1.22
Anomalies of Eye, 743	2	3	2	1	-	2	3	8	-	-	21	13.3	1.58	+	1.51
Anomalies of Ear, Face, Neck 744	3	4	-	1	2	4	9	5	1	1	30	25.3	1.18		2.16
Anomalies of Heart 745.0 -746.9	8	17	10	1	20	8	13	21	10	17	125	123.6	1.01		9.01
transposition of great vessels 745.1	2	1	1	-	2	-	-	1	-	-	7	7.1	0.99		0.50
tetralogy of Fallot 745.2	-	1	-	-	1	1	2	-	-	1	6	5.5	1.08		0.43
ventricular septal defect 745.4	-	5	7	-	6	1	2	8	3	5	37	30.5	1.21		2.67
hypoplastic left heart syndrome 746.7	-	1	-	-	-	-	-	-	-	-	1	3.4	0.30		0.07
other	6	9	2	1	11	6	9	12	7	11	74	77.0	0.96		5.33
Other Circulatory System Anomalies 747.0 -747.9	3	6	1	-	7	9	6	20	19	8	79	86.6	0.91		5.69
patent ductus arteriosus 747.0	-	2	-	-	1	1	5	10	6	4	29	40.1	0.72		2.09
Anomalies of Respiratory System 748	-	2	7	2	-	3	1	5	-	1	21	23.5	0.89		1.51
Cleft Palate/Cleft Lip 749.0-749.2	5	5	4	6	2	3	4	4	6	4	43	34.8	1.24		3.10
Anomalies of Upper Alimentary Tract 750	2	1	1	1	3	3	1	3	3	5	23	27.4	0.84		1.66
tracheoesophageal fistula/atresia/stenosis 750.3	1	1	-	-	-	1	-	-	1	1	5	4.2	1.20		0.36
pyloric stenosis 750.5	1	-	1	1	1	1	1	-	1	2	9	9.5	0.95		0.65
other	-	-	-	-	2	1	-	3	1	2	9	13.7	0.66		0.65
Other Anomalies of Digestive System 751	-	-	1	2	4	3	3	1	5	4	23	25.4	0.90		1.66
Anomalies of Genital Organs 752	5	5	5	2	4	14	13	13	9	4	74	79.8	0.93		5.33
Anomalies of Urinary System 753	5	3	3	1	3	5	3	1	5	6	35	51.3	0.68	-	2.52
renal agenesis 753.0	-	-	2	1	1	1	-	-	-	1	6	6.8	0.89		0.43
cystic kidney disease 753.1	1	-	-	-	-	1	-	1	1	1	5	7.2	0.70		0.36
other	4	3	1	-	2	3	3	-	4	4	24	37.3	0.64	-	1.73
Congenital Musculoskeletal Deformities 754-756	14	17	16	15	13	13	31	30	19	20	188	210.5	0.89		13.54
cong. dislocated hip 754.3	2	3	1	2	2	2	3	4	2	2	23	64.8	0.36	-	1.66
lordosis/scoliosis 754.2	1	-	-	-	-	-	-	-	-	-	1	0.8	1.22		0.07
varus, valgus, clubfoot 754.5-754.7	2	4	5	4	6	3	11	5	3	5	48	42.5	1.13		3.46
polydactyly, syndactyly 755.0-755.1	1	2	1	1	3	3	-	4	3	4	22	20.6	1.07		1.59
limb reductions 755.2-755.4	-	2	1	2	1	-	2	-	3	-	11	7.5	1.47		0.79
chondro/ osteo dystrophies 754.6-756.5	1	-	-	-	-	-	2	-	-	-	3	3.7	0.80		0.22
other	7	6	8	6	1	5	13	17	8	9	80	70.6	1.13		5.76
Anomalies of the Integument 757 , 228.0	2	1	2	3	1	9	7	5	2	3	35	31.3	1.12		2.52
hemangioma 228.0	-	-	1	-	-	1	1	1	-	-	4	4.6	0.87		0.29
other	2	1	1	3	1	8	6	4	2	3	31	26.7	1.16		2.23
Chromosomal Anomalies 758	1	7	2	3	3	5	8	3	-	5	37	37.7	0.98		2.67
Downs syndrome 758.0	1	4	1	2	1	2	4	1	-	3	19	19.7	0.97		1.37
other	-	3	1	1	2	3	4	2	-	2	18	17.9	1.01		1.30
Multiple & Multiple System Anomalies 759.7-759.8	3	3	1	1	-	2	1	1	-	1	13	15.4	0.84		0.94
Other and Unspecified Anomalies 759.0-759.6,759.9	1	1	1	1	-	3	9	3	-	2	21	12.0	1.75	+	1.51
Total Diagnoses	58	78	59	46	62	89	118	132	81	82	805	842.2	0.96		58.00
(Rate /1,000 total births)	(39.2)	(55.6)	(40.2)	(32.9)	(44.4)	(65.0)	(84.5)	(93.9)	(61.9)	(65.1)					
Total Cases	42	53	43	38	37	53	70	75	52	45	508	548.0	0.93		36.60
(Rate /1,000 total births)	(28.4)	(37.8)	(29.3)	(27.2)	(26.5)	(38.7)	(50.1)	(53.3)	(39.8)	(35.7)					
Total Births	1,479	1,403	1,467	1,397	1,396	1,369	1,396	1,406	1,308	1,259	13,880				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non Residents and unknown geographic codes are excluded.

Table 15

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

12 Cariboo

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	8	7	-	6	4	2	3	3	2	1	36	30.0	1.20		3.82
anencephalus & similar defects 740.0-740.2	1	-	-	1	-	-	-	-	1	-	3	1.9	1.62		0.32
neural tube defects 741.0, 741.9, 742.0	5	3	-	4	-	-	-	1	-	-	13	8.9	1.47		1.38
hydrocephalus 742.3	1	1	-	-	2	-	1	-	-	-	5	4.4	1.14		0.53
other	1	3	-	1	2	2	2	2	1	1	15	14.9	1.01		1.59
Anomalies of Eye, 743	-	2	-	1	-	-	-	-	-	-	3	9.0	0.33	(-)	0.32
Anomalies of Ear, Face, Neck 744	2	3	2	2	-	1	-	3	1	4	18	17.2	1.05		1.91
Anomalies of Heart 745.0 -746.9	3	7	2	3	2	2	4	9	17	4	53	83.8	0.63	-	5.63
transposition of great vessels 745.1	-	-	-	-	-	-	-	-	2	-	2	4.8	0.42		0.21
tetralogy of Fallot 745.2	-	-	-	-	-	-	-	-	1	-	1	3.8	0.27		0.11
ventricular septal defect 745.4	-	2	-	-	1	-	-	-	4	2	9	20.7	0.43	-	0.96
hypoplastic left heart syndrome 746.7	-	-	-	-	-	-	-	-	-	-	-	2.3	-		-
other	3	4	2	3	1	2	4	9	10	2	40	52.2	0.77		4.25
Other Circulatory System Anomalies 747.0 -747.9	2	2	2	1	2	2	7	10	13	4	45	58.7	0.77		4.78
patent ductus arteriosus 747.0	1	-	-	-	1	-	2	4	7	2	17	27.2	0.62		1.81
Anomalies of Respiratory System 748	2	1	3	-	4	2	-	3	1	-	16	16.0	1.00		1.70
Cleft Palate/Cleft Lip 749.0-749.2	-	1	1	8	-	8	3	2	9	-	32	23.6	1.36		3.40
Anomalies of Upper Alimentary Tract 750	1	2	1	2	4	1	2	2	-	1	16	18.6	0.86		1.70
tracheoesophageal fistula/atresia/stenosis 750.3	-	1	-	-	-	-	-	-	-	-	1	2.8	0.35		0.11
pyloric stenosis 750.5	1	1	-	-	-	1	-	-	-	-	3	6.4	0.47		0.32
other	-	-	1	2	4	-	2	2	-	1	12	9.3	1.29		1.27
Other Anomalies of Digestive System 751	-	1	-	-	-	1	7	4	5	2	20	17.3	1.16		2.12
Anomalies of Genital Organs 752	3	4	6	7	3	8	1	9	10	4	55	54.1	1.02		5.84
Anomalies of Urinary System 753	1	1	2	5	4	5	2	4	5	2	31	34.8	0.89		3.29
renal agenesis 753.0	1	-	-	-	-	2	-	1	-	-	4	4.6	0.87		0.42
cystic kidney disease 753.1	-	-	1	1	1	-	1	1	1	1	7	4.9	1.44		0.74
other	-	1	1	4	3	3	1	2	4	1	20	25.3	0.79		2.12
Congenital Musculoskeletal Deformities 754-756	9	14	15	16	5	9	8	17	12	10	115	142.7	0.81	-	12.22
cong. dislocated hip 754.3	1	5	3	1	1	2	1	6	1	-	21	43.9	0.48	-	2.23
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	1	1	0.6	1.79		0.11
varus, valgus, clubfoot 754.5-754.7	2	2	3	1	1	4	-	2	2	2	19	28.8	0.66		2.02
polydactyly, syndactyly 755.0-755.1	2	2	2	5	-	-	1	-	2	-	14	14.0	1.00		1.49
limb reductions 755.2-755.4	-	-	1	1	-	-	-	-	-	-	2	5.1	0.39		0.21
chondro/ osteo dystrophies 754.6-756.5	3	-	2	-	-	-	-	-	-	-	5	2.5	1.97		0.53
other	1	5	4	8	3	3	6	9	7	7	53	47.9	1.11		5.63
Anomalies of the Integument 757 , 228.0	2	1	-	2	-	5	3	1	1	2	17	21.2	0.80		1.81
hemangioma 228.0	-	-	-	-	-	1	-	1	-	-	2	3.1	0.64		0.21
other	2	1	-	2	-	4	3	-	1	2	15	18.1	0.83		1.59
Chromosomal Anomalies 758	1	3	-	3	1	1	3	3	3	3	21	25.5	0.82		2.23
Downs syndrome 758.0	-	2	-	1	-	-	3	-	2	1	9	13.3	0.68		0.96
other	1	1	-	2	1	1	-	3	1	2	12	12.1	0.99		1.27
Multiple & Multiple System Anomalies 759.7-759.8	1	1	-	1	-	1	1	4	5	1	15	10.4	1.44		1.59
Other and Unspecified Anomalies 759.0-759.6,759.9	-	1	1	-	-	-	1	1	1	-	5	8.2	0.61		0.53
Total Diagnoses	35	51	35	57	29	48	45	75	85	38	498	571.1	0.87	-	52.91
(Rate /1,000 total births)	(34.9)	(51.7)	(38.8)	(62.2)	(31.9)	(51.0)	(48.4)	(77.4)	(87.5)	(42.9)					
Total Cases	28	35	27	36	21	36	31	46	40	26	326	371.6	0.88	-	34.63
(Rate /1,000 total births)	(27.9)	(35.5)	(29.9)	(39.3)	(23.1)	(38.2)	(33.3)	(47.5)	(41.2)	(29.4)					
Total Births	1,002	987	902	916	909	942	930	969	971	885	9,413				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 16
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

13 North West

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	1	4	9	10	5	7	2	6	6	4	54	45.6	1.19		3.78
anencephalus & similar defects 740.0-740.2	-	-	-	1	-	-	-	1	-	-	2	2.8	0.71		0.14
neural tube defects 741.0, 741.9, 742.0	-	3	2	4	5	2	-	3	-	2	21	13.4	1.56	+	1.47
hydrocephalus 742.3	-	1	3	-	-	-	2	-	1	-	7	6.6	1.05		0.49
other	1	-	4	5	-	5	-	2	5	2	24	22.6	1.06		1.68
Anomalies of Eye, 743	-	-	1	3	3	1	-	-	2	1	11	13.7	0.80		0.77
Anomalies of Ear, Face, Neck 744	9	4	2	4	3	2	1	9	7	2	43	26.0	1.65	+	3.01
Anomalies of Heart 745.0 -746.9	3	14	5	3	15	5	4	8	19	16	92	127.1	0.72	-	6.44
transposition of great vessels 745.1	-	1	-	-	3	-	1	-	-	3	8	7.3	1.10		0.56
tetralogy of Fallot 745.2	-	1	-	-	1	-	-	-	-	-	2	5.7	0.35		0.14
ventricular septal defect 745.4	-	3	2	1	2	-	-	-	4	3	15	31.4	0.48	-	1.05
hypoplastic left heart syndrome 746.7	-	1	-	-	-	1	-	-	-	-	2	3.5	0.58		0.14
other	3	8	3	2	9	4	3	8	15	10	65	79.2	0.82		4.55
Other Circulatory System Anomalies 747.0 -747.9	3	9	4	3	2	9	14	14	15	11	84	89.1	0.94		5.88
patent ductus arteriosus 747.0	3	4	1	1	-	2	3	11	7	6	38	41.3	0.92		2.66
Anomalies of Respiratory System 748	2	1	1	3	3	1	1	2	5	5	24	24.2	0.99		1.68
Cleft Palate/Cleft Lip 749.0-749.2	6	3	6	4	3	1	1	4	9	6	43	35.8	1.20		3.01
Anomalies of Upper Alimentary Tract 750	1	2	1	2	2	2	3	3	5	3	24	28.2	0.85		1.68
tracheoesophageal fistula/atresia/stenosis 750.3	-	1	1	1	-	-	1	-	1	-	5	4.3	1.17		0.35
pyloric stenosis 750.5	1	-	-	1	-	1	-	2	2	3	10	9.8	1.02		0.70
other	-	1	-	-	2	1	2	1	2	-	9	14.1	0.64		0.63
Other Anomalies of Digestive System 751	3	3	1	4	5	-	2	2	4	5	29	26.2	1.11		2.03
Anomalies of Genital Organs 752	9	-	8	6	5	7	7	6	5	4	57	82.1	0.69	-	3.99
Anomalies of Urinary System 753	1	6	4	1	8	3	8	4	2	7	44	52.8	0.83		3.08
renal agenesis 753.0	-	2	-	-	-	1	-	-	-	2	5	7.0	0.72		0.35
cystic kidney disease 753.1	1	1	-	1	-	-	-	2	-	2	7	7.4	0.95		0.49
other	-	3	4	-	8	2	8	2	2	3	32	38.4	0.83		2.24
Congenital Musculoskeletal Deformities 754-756	17	11	17	20	13	17	7	24	31	13	170	216.6	0.78	-	11.90
cong dislocated hip 754.3	1	3	5	3	4	4	-	5	6	2	33	66.6	0.50	-	2.31
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	0.8	-		-
varus, valgus, clubfoot 754.5-754.7	4	2	3	5	1	3	1	10	13	2	44	43.7	1.01		3.08
polydactyly, syndactyly 755.0-755.1	3	1	-	3	1	1	1	4	3	4	21	21.2	0.99		1.47
limb reductions 755.2-755.4	1	-	-	1	1	1	1	-	-	-	5	7.7	0.65		0.35
chondro/ osteo dystrophies 754.6-756.5	-	-	-	-	1	1	-	-	-	2	4	3.9	1.04		0.28
other	8	5	9	8	5	7	4	5	9	3	63	72.6	0.87		4.41
Anomalies of the Integument 757 , 228.0	5	2	3	1	1	-	2	3	7	1	25	32.2	0.78		1.75
hemangioma 228.0	1	-	1	-	-	-	1	-	1	-	4	4.7	0.85		0.28
other	4	2	2	1	1	-	1	3	6	1	21	27.5	0.76		1.47
Chromosomal Anomalies 758	3	-	2	3	2	2	1	3	6	2	24	38.8	0.62	-	1.68
Downs syndrome 758.0	2	-	1	1	2	2	-	1	-	1	10	20.2	0.49	-	0.70
other	1	-	1	2	-	-	1	2	6	1	14	18.4	0.76		0.98
Multiple & Multiple System Anomalies 759.7-759.8	-	2	1	-	-	-	1	1	1	1	7	15.8	0.44	-	0.49
Other and Unspecified Anomalies 759.0-759.6,759.9	1	-	1	-	1	1	3	3	2	-	12	12.4	0.97		0.84
Total Diagnoses	64	61	66	67	71	58	57	92	126	81	743	866.5	0.86	-	52.03
(Rate /1,000 total births)	(41.4)	(38.0)	(43.1)	(44.1)	(52.1)	(39.1)	(42.8)	(64.8)	(96.4)	(68.9)					
Total Cases	51	39	49	49	36	43	42	67	65	57	498	563.8	0.88	-	34.87
(Rate /1,000 total births)	(33.0)	(24.3)	(32.0)	(32.3)	(26.4)	(29.0)	(31.5)	(47.2)	(49.7)	(48.5)					
Total Births	1,546	1,605	1,531	1,519	1,363	1,482	1,333	1,419	1,307	1,176	14,281				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 17

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

14 Peace Liard

Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1989-1998 Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	5	8	5	5	2	4	4	-	4	1	38	32.6	1.17		3.72
anencephalus & similar defects 740.0-740.2	-	-	-	-	-	-	-	-	-	-	-	2.0	-		-
neural tube defects 741.0, 741.9, 742.0	2	3	3	2	1	2	1	-	3	-	17	9.6	1.77	+	1.66
hydrocephalus 742.3	2	2	-	-	-	1	-	-	-	-	5	4.7	1.05		0.49
other	1	3	2	3	1	1	3	-	1	1	16	16.2	0.99		1.57
Anomalies of Eye, 743	1	3	-	-	1	1	2	1	1	3	13	9.8	1.33		1.27
Anomalies of Ear, Face, Neck 744	2	2	-	2	-	1	4	-	1	3	15	18.6	0.81		1.47
Anomalies of Heart 745.0 -746.9	3	6	3	5	1	14	1	5	6	3	47	90.9	0.52	-	4.60
transposition of great vessels 745.1	-	1	-	-	1	-	-	-	-	-	2	5.2	0.38		0.20
tetralogy of Fallot 745.2	2	1	-	-	-	1	-	-	1	-	5	4.1	1.23		0.49
ventricular septal defect 745.4	-	-	1	1	-	2	-	4	2	-	10	22.5	0.45	-	0.98
hypoplastic left heart syndrome 746.7	-	-	-	-	-	-	-	-	-	-	-	2.5	-		-
other	1	4	2	4	-	11	1	1	3	3	30	56.7	0.53	-	2.94
Other Circulatory System Anomalies 747.0 -747.9	1	2	1	4	1	6	6	3	3	2	29	63.7	0.46	-	2.84
patent ductus arteriosus 747.0	-	2	1	3	-	1	2	2	2	-	13	29.5	0.44	-	1.27
Anomalies of Respiratory System 748	-	-	-	-	-	1	-	1	-	-	2	17.3	0.12	(-)	0.20
Cleft Palate/Cleft Lip 749.0-749.2	5	6	2	-	3	2	6	2	2	1	29	25.6	1.13		2.84
Anomalies of Upper Alimentary Tract 750	1	1	-	1	1	1	-	3	-	2	10	20.1	0.50	-	0.98
tracheoesophageal fistula/atresia/stenosis 750.3	-	-	-	-	-	-	-	-	-	1	1	3.1	0.33		0.10
pyloric stenosis 750.5	-	1	-	-	-	-	-	-	-	-	1	7.0	0.14	(-)	0.10
other	1	-	-	1	1	1	-	3	-	1	8	10.1	0.79		0.78
Other Anomalies of Digestive System 751	-	1	-	-	-	1	-	-	-	1	3	18.7	0.16	(-)	0.29
Anomalies of Genital Organs 752	6	3	3	6	3	7	5	8	8	5	54	58.7	0.92		5.29
Anomalies of Urinary System 753	4	1	3	4	3	4	-	2	1	4	26	37.7	0.69		2.55
renal agenesis 753.0	-	-	-	-	1	-	-	-	-	-	1	5.0	0.20		0.10
cystic kidney disease 753.1	1	-	-	2	1	-	-	2	-	4	10	5.3	1.89	+	0.98
other	3	1	3	2	1	4	-	-	1	-	15	27.5	0.55	-	1.47
Congenital Musculoskeletal Deformities 754-756	15	9	6	7	13	12	17	15	12	15	121	154.9	0.78	-	11.85
cong. dislocated hip 754.3	4	1	2	-	-	1	3	-	1	-	12	47.6	0.25	-	1.18
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	0.6	-		-
varus, valgus, clubfoot 754.5-754.7	5	3	2	1	6	5	5	4	2	3	36	31.3	1.15		3.53
polydactyly, syndactyly 755.0-755.1	1	1	-	3	2	-	-	3	1	-	11	15.1	0.73		1.08
limb reductions 755.2-755.4	-	2	1	1	1	-	1	-	2	1	9	5.5	1.63		0.88
chondro/ osteo dystrophies 754.6-756.5	-	-	-	-	-	-	-	-	-	-	-	2.8	-		-
other	5	2	1	2	4	6	8	8	6	11	53	51.9	1.02		5.19
Anomalies of the Integument 757 , 228.0	1	2	1	1	1	1	1	-	1	1	10	23.0	0.43	-	0.98
hemangioma 228.0	-	2	-	-	-	-	-	-	1	-	3	3.4	0.89		0.29
other	1	-	1	1	1	1	1	-	-	1	7	19.6	0.36	-	0.69
Chromosomal Anomalies 758	1	2	4	-	2	2	1	1	2	-	15	27.7	0.54	-	1.47
Downs syndrome 758.0	1	1	3	-	-	1	1	-	2	-	9	14.5	0.62		0.88
other	-	1	-	-	2	1	-	1	-	-	5	13.1	0.38	-	0.49
Multiple & Multiple System Anomalies 759.7-759.8	1	2	-	-	-	1	3	1	-	2	10	11.3	0.88		0.98
Other and Unspecified Anomalies 759.0-759.6,759.9	-	-	-	-	-	1	-	1	-	-	2	8.8	0.23	(-)	0.20
Total Diagnoses	46	48	28	35	31	59	50	43	41	43	424	619.6	0.68	-	41.52
(Rate /1,000 total births)	(43.9)	(45.1)	(26.7)	(34.7)	(29.1)	(55.5)	(49.2)	(43.5)	(41.5)	(46.5)					
Total Cases	34	35	17	22	22	34	32	37	26	31	290	403.2	0.72	-	28.40
(Rate /1,000 total births)	(32.4)	(32.9)	(16.2)	(21.8)	(20.7)	(32.0)	(31.5)	(37.4)	(26.3)	(33.5)					
Total Births	1,049	1,064	1,047	1,008	1,064	1,064	1,016	988	987	925	10,212				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 18
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

15 Northern Interior

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	2	8	5	1	8	10	10	4	3	6	57	58.7	0.97		3.10
anencephalus & similar defects 740.0-740.2	-	1	1	-	1	2	2	-	-	-	7	3.6	1.93		0.38
neural tube defects 741.0, 741.9, 742.0	1	4	1	1	2	2	2	-	-	4	17	17.3	0.98		0.92
hydrocephalus 742.3	-	-	1	-	2	1	-	-	1	-	5	8.6	0.58		0.27
other	1	3	2	-	3	5	6	4	2	2	28	29.2	0.96		1.52
Anomalies of Eye, 743	-	1	1	1	1	2	4	4	5	2	21	17.7	1.19		1.14
Anomalies of Ear, Face, Neck 744	2	2	1	1	3	2	2	3	3	4	23	33.6	0.69		1.25
Anomalies of Heart 745.0 -746.9	5	8	15	20	15	26	30	34	31	31	215	163.6	1.31	+	11.68
transposition of great vessels 745.1	-	-	1	1	-	2	2	3	3	4	16	9.4	1.70	+	0.87
tetralogy of Fallot 745.2	-	-	-	1	3	-	-	-	-	-	4	7.3	0.54		0.22
ventricular septal defect 745.4	1	1	3	5	2	9	10	7	6	6	50	40.5	1.24		2.72
hypoplastic left heart syndrome 746.7	1	1	-	-	1	-	2	1	1	-	7	4.5	1.56		0.38
other	3	6	11	13	9	15	16	23	21	21	138	102.1	1.35	+	7.50
Other Circulatory System Anomalies 747.0 -747.9	3	7	4	7	5	15	13	31	28	16	129	114.8	1.12		7.01
patent ductus arteriosus 747.0	2	4	-	4	4	5	8	15	12	8	62	53.2	1.17		3.37
Anomalies of Respiratory System 748	3	4	2	2	2	1	4	2	2	5	27	31.2	0.87		1.47
Cleft Palate/Cleft Lip 749.0-749.2	4	1	12	3	4	8	4	8	6	10	60	46.1	1.30	+	3.26
Anomalies of Upper Alimentary Tract 750	-	2	2	-	3	3	4	11	8	4	37	36.3	1.02		2.01
tracheoesophageal fistula/atresia/stenosis 750.3	-	2	-	-	1	-	-	-	-	-	3	5.5	0.54		0.16
pyloric stenosis 750.5	-	-	2	-	1	-	-	2	-	-	5	12.6	0.40	-	0.27
other	-	-	-	-	1	3	4	9	8	4	29	18.2	1.59	+	1.58
Other Anomalies of Digestive System 751	1	-	2	4	-	1	2	6	3	10	29	33.7	0.86		1.58
Anomalies of Genital Organs 752	7	4	10	5	3	18	13	16	26	16	118	105.7	1.12		6.41
Anomalies of Urinary System 753	2	3	8	7	5	5	6	2	12	22	72	68.0	1.06		3.91
renal agenesis 753.0	1	1	2	1	-	2	1	-	2	4	14	9.0	1.56		0.76
cystic kidney disease 753.1	-	-	-	-	3	1	1	1	1	2	9	9.5	0.95		0.49
other	1	2	6	6	2	2	4	1	9	16	49	49.5	0.99		2.66
Congenital Musculoskeletal Deformities 754-756	7	21	29	24	13	36	24	33	42	48	277	279.0	0.99		15.05
cong. dislocated hip 754.3	-	3	5	4	2	8	1	5	2	6	36	85.8	0.42	-	1.96
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	1.1	-		-
varus, valgus, clubfoot 754.5-754.7	2	-	7	11	3	12	5	4	11	12	67	56.3	1.19		3.64
polydactyly, syndactyly 755.0-755.1	1	5	3	4	1	1	5	3	1	6	30	27.3	1.10		1.63
limb reductions 755.2-755.4	-	3	2	-	1	-	-	2	5	-	13	9.9	1.31		0.71
chondro/ osteo dystrophies 754.6-756.5	-	1	-	-	2	-	-	-	-	2	5	5.0	1.01		0.27
other	4	9	12	5	4	15	13	19	23	22	126	93.6	1.35	+	6.85
Anomalies of the integument 757 , 228.0	4	6	3	7	4	10	5	6	15	15	75	41.5	1.81	+	4.08
hemangioma 228.0	-	-	1	1	-	2	1	1	1	1	8	6.1	1.31		0.43
other	4	6	2	6	4	8	4	5	14	14	67	35.4	1.89	+	3.64
Chromosomal Anomalies 758	4	7	4	5	4	1	5	1	8	1	40	49.9	0.80		2.17
Downs syndrome 758.0	3	4	2	2	3	-	2	-	5	1	22	26.1	0.84		1.20
other	1	3	2	2	1	1	3	1	3	-	17	23.7	0.72		0.92
Multiple & Multiple System Anomalies 759.7-759.8	1	4	3	-	3	-	-	2	1	4	18	20.4	0.88		0.98
Other and Unspecified Anomalies 759.0-759.6,759.9	-	1	-	3	-	-	1	2	4	6	17	15.9	1.07		0.92
Total Diagnoses	45	79	101	90	73	138	127	165	197	200	1,215	1,116.4	1.09	+	66.03
(Rate /1,000 total births)	(23.6)	(40.0)	(51.6)	(49.7)	(39.4)	(73.9)	(69.7)	(92.4)	(112.6)	(119.5)					
Total Cases	36	56	73	59	49	98	79	119	118	102	789	726.4	1.09	+	42.88
(Rate /1,000 total births)	(18.9)	(28.4)	(37.3)	(32.6)	(26.5)	(52.5)	(43.4)	(66.7)	(67.5)	(61.0)					
Total Births	1,909	1,974	1,956	1,812	1,852	1,868	1,822	1,785	1,749	1,673	18,400				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 19
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

16 Vancouver

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	35	17	12	11	19	21	29	24	14	15	197	191.2	1.03		3.29
anencephalus & similar defects 740.0-740.2	1	5	-	1	-	-	1	-	1	-	9	11.8	0.76		0.15
neural tube defects 741.0, 741.9, 742.0	18	5	6	3	4	5	-	3	1	-	45	56.4	0.80		0.75
hydrocephalus 742.3	4	2	2	-	3	5	6	4	2	1	29	27.9	1.04		0.48
other	12	5	4	7	12	11	22	17	10	14	114	95.0	1.20		1.90
Anomalies of Eye, 743	5	6	9	4	4	6	7	12	6	4	63	57.6	1.09		1.05
Anomalies of Ear, Face, Neck 744	5	12	22	5	5	23	8	17	18	16	131	109.4	1.20	+	2.19
Anomalies of Heart 745.0 -746.9	43	69	43	36	62	64	80	107	98	85	687	533.7	1.29	+	11.46
transposition of great vessels 745.1	2	3	1	3	1	-	3	4	3	4	24	30.6	0.78		0.40
tetralogy of Fallot 745.2	5	2	2	3	3	1	4	2	3	6	31	23.9	1.30		0.52
ventricular septal defect 745.4	8	15	18	14	20	27	17	31	29	26	205	131.8	1.56	+	3.42
hypoplastic left heart syndrome 746.7	-	4	3	-	2	1	3	4	3	2	22	14.6	1.51		0.37
other	28	45	19	16	36	35	53	66	60	47	405	332.7	1.22	+	6.76
Other Circulatory System Anomalies 747.0 -747.9	28	35	28	27	28	44	58	99	114	86	547	374.1	1.46	+	9.12
patent ductus arteriosus 747.0	12	15	11	13	9	25	30	56	65	53	289	173.4	1.67	+	4.82
Anomalies of Respiratory System 748	18	19	13	7	10	16	13	16	13	12	137	101.6	1.35	+	2.29
Cleft Palate/Cleft Lip 749.0-749.2	13	25	18	17	5	24	11	22	19	20	174	150.2	1.16		2.90
Anomalies of Upper Alimentary Tract 750	11	6	10	15	14	11	10	14	14	10	115	118.3	0.97		1.92
tracheoesophageal fistula/atresia/stenosis 750.3	2	1	2	2	1	3	1	3	3	5	23	18.0	1.28		0.38
pyloric stenosis 750.5	7	3	8	6	9	6	3	3	5	2	52	41.0	1.27		0.87
other	2	2	-	7	4	2	6	8	6	3	40	59.3	0.67	-	0.67
Other Anomalies of Digestive System 751	17	11	16	15	12	20	11	15	12	20	149	109.9	1.36	+	2.49
Anomalies of Genital Organs 752	22	40	48	34	51	35	37	82	60	33	442	344.5	1.28	+	7.37
Anomalies of Urinary System 753	15	33	27	22	34	36	27	43	26	31	294	221.6	1.33	+	4.90
renal agenesis 753.0	1	7	2	3	3	9	2	5	3	2	37	29.2	1.27		0.62
cystic kidney disease 753.1	2	1	1	5	2	5	4	4	4	6	34	31.0	1.10		0.57
other	12	25	24	14	29	22	21	34	19	23	223	161.3	1.38	+	3.72
Congenital Musculoskeletal Deformities 754-756	61	196	145	128	138	110	69	161	145	110	1,263	909.1	1.39	+	21.07
cong. dislocated hip 754.3	12	104	69	87	68	39	14	76	63	47	579	279.7	2.07	+	9.66
lordosis/scoliosis 754.2	-	-	-	-	2	-	-	-	-	1	3	3.5	0.85		0.05
varus, valgus, clubfoot 754.5-754.7	10	36	26	18	27	23	13	28	29	17	227	183.5	1.24	+	3.79
polydactyly, syndactyly 755.0-755.1	10	15	14	9	11	9	6	13	5	8	100	88.8	1.13		1.67
limb reductions 755.2-755.4	4	3	8	1	1	3	1	2	5	3	31	32.3	0.96		0.52
chondro/ osteo dystrophies 754.6-756.5	2	1	3	-	5	-	2	1	3	1	18	16.2	1.11		0.30
other	23	37	25	13	24	36	33	41	40	33	305	304.9	1.00		5.09
Anomalies of the Integument 757 , 228.0	11	20	12	12	17	24	11	33	26	13	179	135.1	1.32	+	2.99
hemangioma 228.0	3	1	1	3	-	1	2	4	6	3	24	19.8	1.21		0.40
other	8	19	11	9	17	23	9	29	20	10	155	115.3	1.34	+	2.59
Chromosomal Anomalies 758	17	20	16	16	18	19	27	28	24	17	202	162.7	1.24	+	3.37
Downs syndrome 758.0	6	12	6	4	6	10	11	13	15	8	91	84.9	1.07		1.52
other	11	8	10	12	12	9	16	15	9	9	111	77.2	1.44	+	1.85
Multiple & Multiple System Anomalies 759.7-759.8	11	6	7	11	6	13	9	11	7	12	93	66.5	1.40	+	1.55
Other and Unspecified Anomalies 759.0-759.6,759.9	6	8	5	2	6	7	9	8	5	11	67	51.9	1.29	+	1.12
Total Diagnoses	318	523	431	362	429	473	416	692	601	495	4,740	3,637.4	1.30	+	79.07
(Rate /1,000 total births)	(54.1)	(88.7)	(75.4)	(62.6)	(70.3)	(75.5)	(64.8)	(109.7)	(99.7)	(89.0)					
Total Cases	193	372	328	285	313	307	238	440	393	295	3,164	2,366.7	1.34	+	52.78
(Rate /1,000 total births)	(32.9)	(63.1)	(57.4)	(49.3)	(51.3)	(49.0)	(37.1)	(69.8)	(65.2)	(53.0)					
Total Births	5,875	5,896	5,715	5,785	6,099	6,266	6,417	6,307	6,026	5,563	59,949				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 20
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

17 Burnaby

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	2	6	5	10	4	12	9	19	3	-	70	64.6	1.08		3.46
anencephalus & similar defects 740.0-740.2	1	-	-	1	-	4	1	3	-	-	10	4.0	2.50	+	0.49
neural tube defects 741.0, 741.9, 742.0	1	3	-	4	-	1	1	3	-	-	13	19.0	0.68		0.64
hydrocephalus 742.3	-	-	1	-	1	2	2	1	-	-	7	9.4	0.74		0.35
other	-	3	4	5	3	5	5	12	3	-	40	32.1	1.25		1.98
Anomalies of Eye, 743	-	3	3	2	2	2	2	3	2	-	19	19.4	0.98		0.94
Anomalies of Ear, Face, Neck 744	1	2	1	3	3	3	4	8	7	2	34	36.9	0.92		1.68
Anomalies of Heart 745.0 -746.9	13	10	14	13	10	22	21	38	26	18	185	180.3	1.03		9.13
transposition of great vessels 745.1	2	-	1	1	-	-	1	3	4	-	12	10.3	1.16		0.59
tetralogy of Fallot 745.2	-	2	2	2	1	1	-	1	1	2	12	8.1	1.48		0.59
ventricular septal defect 745.4	3	4	4	4	4	3	5	10	6	2	45	44.5	1.01		2.22
hypoplastic left heart syndrome 746.7	-	-	2	1	1	-	-	3	-	-	7	4.9	1.42		0.35
other	8	4	5	5	4	18	15	21	15	14	109	112.4	0.97		5.38
Other Circulatory System Anomalies 747.0 -747.9	7	11	6	9	8	12	13	21	28	17	132	126.4	1.04		6.52
patent ductus arteriosus 747.0	1	7	2	3	4	6	9	11	17	9	69	58.6	1.18		3.41
Anomalies of Respiratory System 748	2	1	3	3	3	-	8	7	2	1	30	34.3	0.87		1.48
Cleft Palate/Cleft Lip 749.0-749.2	9	2	3	6	10	6	1	6	9	3	55	50.7	1.08		2.72
Anomalies of Upper Alimentary Tract 750	3	4	4	6	2	5	5	6	11	4	50	40.0	1.25		2.47
tracheoesophageal fistula/atresia/stenosis 750.3	1	1	-	1	-	1	-	-	-	1	5	6.1	0.82		0.25
pyloric stenosis 750.5	1	3	-	5	1	1	5	-	2	1	19	13.9	1.37		0.94
other	1	-	4	-	1	3	-	6	9	2	26	20.0	1.30		1.28
Other Anomalies of Digestive System 751	2	1	2	4	2	4	1	6	8	2	32	37.1	0.86		1.58
Anomalies of Genital Organs 752	2	9	13	6	14	17	8	14	14	11	108	116.4	0.93		5.33
Anomalies of Urinary System 753	4	9	9	9	4	6	10	11	15	10	87	74.9	1.16		4.30
renal agenesis 753.0	1	-	-	-	-	2	1	-	1	1	6	9.9	0.61		0.30
cystic kidney disease 753.1	1	2	1	1	1	-	1	3	1	-	11	10.5	1.05		0.54
other	2	7	8	8	3	4	8	8	13	9	70	54.5	1.28	+	3.46
Congenital Musculoskeletal Deformities 754-756	22	24	44	27	26	42	26	36	42	32	321	307.1	1.05		15.85
cong. dislocated hip 754.3	3	18	22	12	15	18	10	25	14	11	148	94.5	1.57	+	7.31
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	1.2	-		-
varus, valgus, clubfoot 754.5-754.7	3	2	5	6	3	8	6	1	6	4	44	62.0	0.71	-	2.17
polydactyly, syndactyly 755.0-755.1	2	1	2	-	3	5	2	1	4	3	23	30.0	0.77		1.14
limb reductions 755.2-755.4	-	-	2	1	-	-	1	-	1	-	5	10.9	0.46		0.25
chondro/ osteo dystrophies 754.6-756.5	2	2	3	2	-	-	3	-	-	-	12	5.5	2.20	+	0.59
other	12	1	10	6	5	11	4	9	17	14	89	103.0	0.86		4.39
Anomalies of the Integument 757 , 228.0	2	1	2	-	5	3	1	10	6	5	35	45.6	0.77		1.73
hemangioma 228.0	-	-	-	-	-	-	-	3	-	1	4	6.7	0.60		0.20
other	2	1	2	-	5	3	1	7	6	4	31	38.9	0.80		1.53
Chromosomal Anomalies 758	3	2	4	8	3	9	3	4	8	6	50	55.0	0.91		2.47
Downs syndrome 758.0	1	2	3	4	3	5	2	2	1	3	26	28.7	0.91		1.28
other	2	-	-	4	-	4	1	2	7	3	23	26.1	0.88		1.14
Multiple & Multiple System Anomalies 759.7-759.8	2	1	1	3	2	4	2	1	4	3	23	22.5	1.02		1.14
Other and Unspecified Anomalies 759.0-759.6,759.9	-	1	1	2	-	1	3	-	2	1	11	17.5	0.63		0.54
Total Diagnoses	74	87	115	111	98	148	117	190	187	115	1,242	1,228.8	1.01		61.33
(Rate /1,000 total births)	(36.8)	(42.8)	(57.8)	(56.1)	(50.1)	(71.2)	(55.9)	(91.8)	(93.2)	(56.5)					
Total Cases	45	65	84	72	76	89	70	113	107	75	796	799.5	1.00		39.30
(Rate /1,000 total births)	(22.4)	(32.0)	(42.3)	(36.4)	(38.8)	(42.8)	(33.4)	(54.6)	(53.3)	(36.8)					
Total Births	2,009	2,032	1,988	1,980	1,957	2,079	2,094	2,070	2,007	2,036	20,252				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).

(p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.

Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.

HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 21

Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth British Columbia, 1989-1998

18 North Shore

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	5	5	4	10	7	10	10	8	3	4	66	59.3	1.11		3.55
anencephalus & similar defects 740.0-740.2	-	-	-	-	-	1	1	-	-	1	3	3.7	0.82		0.16
neural tube defects 741.0, 741.9, 742.0	2	-	1	3	-	1	2	-	-	3	12	17.5	0.69		0.65
hydrocephalus 742.3	2	3	1	1	1	1	2	2	-	-	13	8.6	1.50		0.70
other	1	2	2	6	6	7	5	6	3	-	38	29.5	1.29		2.04
Anomalies of Eye, 743	-	3	1	1	1	2	1	-	1	-	10	17.9	0.56		0.54
Anomalies of Ear, Face, Neck 744	1	8	1	-	-	2	1	1	1	6	21	33.9	0.62	-	1.13
Anomalies of Heart 745.0 -746.9	6	12	11	13	12	16	9	23	10	23	135	165.6	0.82	-	7.26
transposition of great vessels 745.1	-	-	-	2	1	2	-	-	-	2	7	9.5	0.74		0.38
tetralogy of Fallot 745.2	1	-	1	1	-	-	-	1	-	1	5	7.4	0.67		0.27
ventricular septal defect 745.4	-	5	3	3	3	4	1	9	4	4	36	40.9	0.88		1.94
hypoplastic left heart syndrome 746.7	-	-	-	-	1	-	-	-	-	-	1	4.5	0.22		0.05
other	5	7	7	7	7	10	8	13	6	16	86	103.2	0.83		4.62
Other Circulatory System Anomalies 747.0 -747.9	8	5	7	11	4	6	10	20	9	17	97	116.0	0.84		5.22
patent ductus arteriosus 747.0	3	2	1	4	2	3	5	10	4	7	41	53.8	0.76		2.20
Anomalies of Respiratory System 748	4	4	6	3	2	3	2	3	3	1	31	31.5	0.98		1.67
Cleft Palate/Cleft Lip 749.0-749.2	2	7	2	8	5	3	8	1	6	-	42	46.6	0.90		2.26
Anomalies of Upper Alimentary Tract 750	5	4	4	5	-	2	1	2	2	2	27	36.7	0.74		1.45
tracheoesophageal fistula/atresia/stenosis 750.3	1	1	-	1	-	1	-	2	-	-	6	5.6	1.07		0.32
pyloric stenosis 750.5	4	2	3	4	-	-	1	-	-	1	15	12.7	1.18		0.81
other	-	1	1	-	-	1	-	-	2	1	6	18.4	0.33	-	0.32
Other Anomalies of Digestive System 751	-	3	2	3	1	5	6	2	4	4	30	34.1	0.88		1.61
Anomalies of Genital Organs 752	8	10	5	12	12	10	6	18	16	7	104	106.9	0.97		5.59
Anomalies of Urinary System 753	4	5	1	5	7	7	5	3	8	6	51	68.7	0.74	-	2.74
renal agenesis 753.0	1	-	-	-	-	-	-	1	-	-	2	9.1	0.22	(-)	0.11
cystic kidney disease 753.1	-	-	-	1	1	-	-	1	2	1	6	9.6	0.62		0.32
other	3	5	1	4	6	7	5	1	6	5	43	50.0	0.86		2.31
Congenital Musculoskeletal Deformities 754-756	23	37	34	17	15	26	8	27	39	18	244	282.0	0.87	-	13.12
cong. dislocated hip 754.3	8	6	11	3	4	14	5	16	8	9	84	86.8	0.97		4.52
lordosis/scoliosis 754.2	-	-	-	-	-	1	-	-	-	-	1	1.1	0.91		0.05
varus, valgus, clubfoot 754.5-754.7	5	2	7	7	4	2	1	3	15	3	49	56.9	0.86		2.63
polydactyly, syndactyly 755.0-755.1	3	-	3	2	2	1	-	1	2	2	16	27.6	0.58	-	0.86
limb reductions 755.2-755.4	-	3	4	1	1	-	-	-	-	-	9	10.0	0.90		0.48
chondro/ osteo dystrophies 754.6-756.5	-	-	-	-	1	1	-	1	2	-	5	5.0	1.00		0.27
other	7	26	9	4	3	7	2	6	12	4	80	94.6	0.85		4.30
Anomalies of the Integument 757 , 228.0	3	2	7	6	2	7	7	8	4	3	49	41.9	1.17		2.63
hemangioma 228.0	-	-	2	-	-	3	1	2	-	-	8	6.2	1.30		0.43
other	3	2	5	6	2	4	6	6	4	3	41	35.8	1.15		2.20
Chromosomal Anomalies 758	2	6	6	7	4	7	7	4	5	11	59	50.5	1.17		3.17
Downs syndrome 758.0	2	3	4	4	1	2	3	4	3	6	32	26.3	1.21		1.72
other	-	3	2	3	3	5	4	-	2	5	27	23.9	1.13		1.45
Multiple & Multiple System Anomalies 759.7-759.8	1	3	3	-	-	-	-	-	1	4	12	20.6	0.58		0.65
Other and Unspecified Anomalies 759.0-759.6,759.9	1	2	5	1	1	3	1	3	2	1	20	16.1	1.24		1.08
Total Diagnoses	73	116	99	102	73	109	82	123	114	107	998	1,128.4	0.88	-	53.66
(Rate /1,000 total births)	(36.6)	(59.0)	(51.1)	(52.5)	(38.4)	(59.0)	(45.8)	(66.2)	(66.7)	(65.0)					
Total Cases	57	74	64	75	60	65	53	75	65	64	652	734.2	0.89	-	35.06
(Rate /1,000 total births)	(28.6)	(37.6)	(33.0)	(38.6)	(31.5)	(35.2)	(29.6)	(40.4)	(38.0)	(38.9)					
Total Births	1,994	1,966	1,939	1,943	1,902	1,849	1,790	1,858	1,710	1,647	18,598				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 22
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

19 Richmond

											1989-1998				
Diagnosis / ICD Code(s)	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	Obs	Exp	Ratio	(p)	Rate
Nervous System Defects 740 -742	3	5	6	7	1	3	4	1	4	3	37	53.9	0.69	-	2.19
anencephalus & similar defects 740.0-740.2	2	-	1	-	-	-	-	-	-	-	3	3.3	0.90		0.18
neural tube defects 741.0, 741.9, 742.0	-	4	1	3	-	2	1	-	3	-	14	15.9	0.88		0.83
hydrocephalus 742.3	-	1	-	1	-	1	1	1	-	-	5	7.9	0.64		0.30
other	1	-	4	3	1	-	2	-	1	3	15	26.8	0.56	-	0.89
Anomalies of Eye, 743	-	-	4	-	1	2	2	-	-	1	10	16.2	0.62		0.59
Anomalies of Ear, Face, Neck 744	2	1	3	3	-	3	2	2	2	6	24	30.8	0.78		1.42
Anomalies of Heart 745.0 -746.9	8	8	14	4	7	27	12	13	14	33	140	150.6	0.93		8.28
transposition of great vessels 745.1	1	-	-	-	1	3	-	-	1	1	7	8.6	0.81		0.41
tetralogy of Fallot 745.2	2	1	2	-	-	-	-	-	-	-	5	6.7	0.74		0.30
ventricular septal defect 745.4	2	2	4	3	3	2	4	4	5	7	36	37.2	0.97		2.13
hypoplastic left heart syndrome 746.7	-	-	-	-	-	1	2	-	1	3	7	4.1	1.70		0.41
other	3	5	8	1	3	21	6	9	7	22	85	93.8	0.91		5.03
Other Circulatory System Anomalies 747.0 -747.9	3	6	11	8	9	10	12	14	12	18	103	105.5	0.98		6.09
patent ductus arteriosus 747.0	1	1	3	2	3	4	5	5	8	10	42	48.9	0.86		2.48
Anomalies of Respiratory System 748	2	2	3	-	-	1	2	3	3	2	18	28.7	0.63	-	1.06
Cleft Palate/Cleft Lip 749.0-749.2	2	4	11	2	5	6	3	2	2	5	42	42.4	0.99		2.48
Anomalies of Upper Alimentary Tract 750	4	2	2	3	1	5	2	1	5	3	28	33.4	0.84		1.66
tracheoesophageal fistula/atresia/stenosis 750.3	1	-	-	-	-	1	-	-	1	-	3	5.1	0.59		0.18
pyloric stenosis 750.5	3	-	2	3	1	1	2	1	-	1	14	11.6	1.21		0.83
other	-	2	-	-	-	3	-	-	4	2	11	16.7	0.66		0.65
Other Anomalies of Digestive System 751	4	2	7	2	3	1	5	-	3	-	27	31.0	0.87		1.60
Anomalies of Genital Organs 752	5	6	4	8	3	7	7	17	12	4	73	97.2	0.75	-	4.32
Anomalies of Urinary System 753	3	1	10	7	16	4	8	6	8	8	71	62.5	1.14		4.20
renal agenesis 753.0	-	-	2	2	2	-	1	1	-	1	9	8.2	1.09		0.53
cystic kidney disease 753.1	-	-	1	-	-	1	3	1	2	1	9	8.7	1.03		0.53
other	3	1	7	5	14	3	4	4	6	6	53	45.5	1.17		3.13
Congenital Musculoskeletal Deformities 754-756	16	27	29	23	18	34	21	29	21	28	246	256.4	0.96		14.55
cong. dislocated hip 754.3	5	13	11	7	9	13	6	10	6	13	93	78.9	1.18		5.50
lordosis/scoliosis 754.2	-	1	-	-	-	-	-	-	-	-	1	1.0	1.00		0.06
varus, valgus, clubfoot 754.5-754.7	3	5	9	2	2	5	5	14	9	1	55	51.8	1.06		3.25
polydactyly, syndactyly 755.0-755.1	-	2	3	3	2	2	-	1	1	3	17	25.1	0.68		1.01
limb reductions 755.2-755.4	-	1	-	1	1	-	3	1	-	-	7	9.1	0.77		0.41
chondro/ osteo dystrophies 754.6-756.5	-	-	-	-	-	-	-	-	-	-	-	4.6	-		-
other	8	5	6	10	4	14	7	3	5	11	73	86.0	0.85		4.32
Anomalies of the Integument 757 , 228.0	-	2	4	1	3	9	4	5	3	-	31	38.1	0.81		1.83
hemangioma 228.0	-	-	-	-	-	-	-	1	-	-	1	5.6	0.18		0.06
other	-	2	4	1	3	9	4	4	3	-	30	32.5	0.92		1.77
Chromosomal Anomalies 758	9	3	8	3	7	9	4	2	5	4	54	45.9	1.18		3.19
Downs syndrome 758.0	6	2	4	1	7	5	1	1	4	1	32	23.9	1.34		1.89
other	3	1	4	2	-	4	3	1	1	3	22	21.8	1.01		1.30
Multiple & Multiple System Anomalies 759.7-759.8	1	1	2	4	2	1	2	3	1	1	18	18.8	0.96		1.06
Other and Unspecified Anomalies 759.0-759.6,759.9	1	1	3	-	1	-	1	2	2	5	16	14.6	1.09		0.95
Total Diagnoses	63	71	121	75	77	122	91	100	97	121	938	1,026.0	0.91	-	55.47
(Rate /1,000 total births)	(39.1)	(42.6)	(69.5)	(43.1)	(45.3)	(74.5)	(50.9)	(59.0)	(57.8)	(73.3)					
Total Cases	48	51	80	57	56	73	52	73	69	66	625	667.6	0.94		36.96
(Rate /1,000 total births)	(29.8)	(30.6)	(46.0)	(32.7)	(33.0)	(44.6)	(29.1)	(43.1)	(41.1)	(40.0)					
Total Births	1,613	1,668	1,741	1,741	1,698	1,638	1,788	1,695	1,677	1,651	16,910				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).

(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.

Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.

HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 23
Congenital Anomalies for Total Births (Live birth and Stillbirth) by Year of Birth
British Columbia, 1989-1998

20 Capital

											1989-1998				
Diagnosis / ICD Code(s)	**1989**	**1990**	**1991**	**1992**	**1993**	**1994**	**1995**	**1996**	**1997**	**1998**	**Obs**	**Exp**	**Ratio**	**(p)**	**Rate**
Nervous System Defects 740 -742	13	8	13	8	6	8	18	13	6	7	100	105.8	0.94		3.01
anencephalus & similar defects 740.0-740.2	-	1	1	1	1	-	-	-	1	-	5	6.5	0.76		0.15
neural tube defects 741.0, 741.9, 742.0	6	2	2	4	2	2	2	-	2	1	23	31.2	0.74		0.69
hydrocephalus 742.3	1	4	4	2	-	1	2	4	-	1	19	15.4	1.23		0.57
other	6	1	6	1	3	5	14	8	3	5	52	52.6	0.99		1.57
Anomalies of Eye, 743	4	2	1	2	-	1	12	7	2	-	31	31.9	0.97		0.93
Anomalies of Ear, Face, Neck 744	4	1	2	4	3	6	5	13	4	3	45	60.5	0.74	-	1.36
Anomalies of Heart 745.0 -746.9	22	19	27	26	17	20	39	43	30	45	288	295.4	0.98		8.68
transposition of great vessels 745.1	3	1	3	1	1	-	2	2	3	4	20	16.9	1.18		0.60
tetralogy of Fallot 745.2	-	4	1	2	1	1	3	5	2	2	21	13.2	1.59	+	0.63
ventricular septal defect 745.4	3	5	6	2	3	6	11	13	4	8	61	73.0	0.84		1.84
hypoplastic left heart syndrome 746.7	1	1	-	3	-	1	1	1	-	-	8	8.1	0.99		0.24
other	15	8	17	18	12	12	22	22	21	31	178	184.1	0.97		5.37
Other Circulatory System Anomalies 747.0 -747.9	4	8	14	10	7	24	23	21	14	42	167	207.0	0.81	-	5.03
patent ductus arteriosus 747.0	2	1	4	2	1	11	15	14	5	25	80	95.9	0.83		2.41
Anomalies of Respiratory System 748	5	5	3	1	3	1	2	3	6	5	34	56.2	0.60	-	1.02
Cleft Palate/Cleft Lip 749.0-749.2	4	8	4	7	3	3	8	9	5	9	60	83.1	0.72	-	1.81
Anomalies of Upper Alimentary Tract 750	2	4	2	1	2	7	3	9	4	1	35	65.5	0.53	-	1.05
tracheoesophageal fistula/atresia/stenosis 750.3	1	3	1	-	1	3	-	-	1	-	10	10.0	1.00		0.30
pyloric stenosis 750.5	-	-	-	1	-	2	-	2	2	-	7	22.7	0.31	-	0.21
other	1	1	1	-	1	2	3	7	1	1	18	32.8	0.55	-	0.54
Other Anomalies of Digestive System 751	5	1	4	-	-	3	5	7	2	3	30	60.8	0.49	-	0.90
Anomalies of Genital Organs 752	13	3	10	7	14	16	21	23	10	11	128	190.6	0.67	-	3.86
Anomalies of Urinary System 753	7	3	5	11	5	9	9	8	10	18	85	122.6	0.69	-	2.56
renal agenesis 753.0	2	-	2	6	-	1	1	2	-	1	15	16.1	0.93		0.45
cystic kidney disease 753.1	-	2	-	2	-	-	2	3	-	1	10	17.2	0.58		0.30
other	5	1	3	3	5	8	6	3	10	16	60	89.2	0.67	-	1.81
Congenital Musculoskeletal Deformities 754-756	38	24	19	18	24	25	45	45	34	37	309	503.1	0.61	-	9.31
cong. dislocated hip 754.3	5	9	-	2	3	5	7	7	9	4	51	154.8	0.33	-	1.54
lordosis/scoliosis 754.2	-	-	-	-	-	-	-	-	-	-	-	2.0	-		-
varus, valgus, clubfoot 754.5-754.7	7	3	5	5	10	9	10	19	6	10	84	101.5	0.83		2.53
polydactyly, syndactyly 755.0-755.1	4	1	5	4	1	2	3	-	7	7	34	49.2	0.69	-	1.02
limb reductions 755.2-755.4	2	-	1	-	1	-	3	1	1	3	12	17.9	0.67		0.36
chondro/ osteo dystrophies 754.6-756.5	1	1	-	-	2	1	4	1	1	4	15	8.9	1.68	+	0.45
other	19	10	3	7	7	8	18	17	10	9	113	168.7	0.67	-	3.41
Anomalies of the Integument 757 , 228.0	2	3	3	4	3	6	4	7	3	7	42	74.8	0.56	-	1.27
hemangioma 228.0	-	1	-	-	-	4	-	2	-	-	7	11.0	0.64		0.21
other	2	2	3	4	3	2	4	5	3	7	35	63.8	0.55	-	1.05
Chromosomal Anomalies 758	9	10	7	6	4	6	8	10	11	9	80	90.0	0.89		2.41
Downs syndrome 758.0	8	6	5	3	4	4	5	5	10	3	53	47.0	1.13		1.60
other	1	4	2	3	-	2	3	5	1	6	27	42.7	0.63	-	0.81
Multiple & Multiple System Anomalies 759.7-759.8	5	3	4	3	3	1	11	2	1	4	37	36.8	1.01		1.12
Other and Unspecified Anomalies 759.0-759.6,759.9	1	2	-	1	1	1	3	-	3	1	13	28.7	0.45	-	0.39
Total Diagnoses	138	104	118	109	95	137	216	220	145	202	1,484	2,012.9	0.74	-	44.73
(Rate /1,000 total births)	(41.3)	(30.0)	(33.4)	(31.1)	(27.3)	(39.9)	(65.2)	(70.2)	(47.0)	(70.0)					
Total Cases	91	83	77	79	67	98	130	142	93	101	961	1,309.7	0.73	-	28.97
(Rate /1,000 total births)	(27.3)	(23.9)	(21.8)	(22.5)	(19.3)	(28.6)	(39.2)	(45.3)	(30.1)	(35.0)					
Total Births	3,339	3,472	3,531	3,505	3,476	3,432	3,315	3,134	3,085	2,887	33,176				

Notes: Rate per 1,000 Total births (Live births and Stillbirths).
(p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Non-Residents and unknown geographic codes are excluded.

Table 26
Congenital Anomaly Cases by Health Region
British Columbia, 1989 - 1998

Health Region		Total Births	Observed	Expected	Ratio	(p)	Rate
01	East Kootenay	8,322	220	328.5	0.67	-	26.44
02	West Kootenay - Boundary	8,047	251	317.7	0.79	-	31.19
03	North Okanagan	11,428	365	451.2	0.81	-	31.94
04	South Okanagan Similkameen	21,268	731	839.6	0.87	-	34.37
05	Thompson	14,610	604	576.8	1.05		41.34
06	Fraser Valley	30,752	1,086	1,214.0	0.89	-	35.31
07	South Fraser Valley	73,258	2,894	2,892.1	1.00		39.50
08	Simon Fraser	39,245	1,779	1,549.3	1.15	+	45.33
09	Coast Garibaldi	8,511	349	336.0	1.04		41.01
10	Central Vancouver Island	24,547	895	969.1	0.92	-	36.46
11	Upper Island/Central Coast	13,880	508	548.0	0.93		36.60
12	Cariboo	9,413	326	371.6	0.88	-	34.63
13	North West	14,281	498	563.8	0.88	-	34.87
14	Peace Liard	10,212	290	403.2	0.72	-	28.40
15	Northern Interior	18,400	789	726.4	1.09	+	42.88
16	Vancouver	59,949	3,164	2,366.7	1.34	+	52.78
17	Burnaby	20,252	796	799.5	1.00		39.30
18	North Shore	18,598	652	734.2	0.89	-	35.06
19	Richmond	16,910	625	667.6	0.94		36.96
20	Capital	33,176	961	1,309.7	0.73	-	28.97
	B.C. Total	456,121	18,007	18,007.0	1.00		39.48

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Diagnoses with unknown HR are included in B.C. Total. See Appendix 1 for ICD9 codes.

Table 27
Congenital Anomaly Diagnoses by Health Region
British Columbia, 1989 - 1998

Health Region		Total Births	Observed	Expected	Ratio	(p)	Rate
01	East Kootenay	8,322	317	504.9	0.63	-	38.09
02	West Kootenay - Boundary	8,047	422	488.3	0.86	-	52.44
03	North Okanagan	11,428	550	693.4	0.79	-	48.13
04	South Okanagan Similkameen	21,268	1,177	1,290.4	0.91	-	55.34
05	Thompson	14,610	932	886.5	1.05		63.79
06	Fraser Valley	30,752	1,733	1,865.9	0.93	-	56.35
07	South Fraser Valley	73,258	4,645	4,444.9	1.05	+	63.41
08	Simon Fraser	39,245	2,582	2,381.2	1.08	+	65.79
09	Coast Garibaldi	8,511	510	516.4	0.99		59.92
10	Central Vancouver Island	24,547	1,396	1,489.4	0.94	-	56.87
11	Upper Island/Central Coast	13,880	805	842.2	0.96		58.00
12	Cariboo	9,413	498	571.1	0.87	-	52.91
13	North West	14,281	743	866.5	0.86	-	52.03
14	Peace Liard	10,212	424	619.6	0.68	-	41.52
15	Northern Interior	18,400	1,215	1,116.4	1.09	+	66.03
16	Vancouver	59,949	4,740	3,637.4	1.30	+	79.07
17	Burnaby	20,252	1,242	1,228.8	1.01		61.33
18	North Shore	18,598	998	1,128.4	0.88	-	53.66
19	Richmond	16,910	938	1,026.0	0.91	-	55.47
20	Capital	33,176	1,484	2,012.9	0.74	-	44.73
	B.C. Total	456,121	27,675	27,675.0	1.00		60.67

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of all congenital anomalies recorded in the HSR for births 1989-1998.
HR assignment by usual address at time of birth. Diagnoses with unknown HR are included in B.C. Total. See Appendix 1 for ICD9 codes.

Table 28
Congenital Nervous System Defects by Health Region
British Columbia, 1989 - 1998

Health Region		Total Births	Observed	Expected	Ratio	(p)	Rate
01	East Kootenay	8,322	13	26.6	0.49	-	1.56
02	West Kootenay - Boundary	8,047	24	25.7	0.93		2.98
03	North Okanagan	11,428	21	36.5	0.58	-	1.84
04	South Okanagan Similkameen	21,268	63	67.8	0.93		2.96
05	Thompson	14,610	31	46.6	0.67	-	2.12
06	Fraser Valley	30,752	106	98.1	1.08		3.45
07	South Fraser Valley	73,258	217	233.7	0.93		2.96
08	Simon Fraser	39,245	144	125.2	1.15		3.67
09	Coast Garibaldi	8,511	35	27.2	1.29		4.11
10	Central Vancouver Island	24,547	81	78.3	1.03		3.30
11	Upper Island/Central Coast	13,880	37	44.3	0.84		2.67
12	Cariboo	9,413	36	30.0	1.20		3.82
13	North West	14,281	54	45.6	1.19		3.78
14	Peace Liard	10,212	38	32.6	1.17		3.72
15	Northern Interior	18,400	57	58.7	0.97		3.10
16	Vancouver	59,949	197	191.2	1.03		3.29
17	Burnaby	20,252	70	64.6	1.08		3.46
18	North Shore	18,598	66	59.3	1.11		3.55
19	Richmond	16,910	37	53.9	0.69	-	2.19
20	Capital	33,176	100	105.8	0.94		3.01
	B.C. Total	456,121	1,455	1,455.0	1.00		3.19

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of individuals born with one or more Congenital Nervous System Defect.
HR assignment by usual address at time of birth. See Appendix 1 for ICD9 codes.

Table 29
Congenital Heart Defects by Health Region
British Columbia, 1989 - 1998

Health Region		Total Births	Observed	Expected	Ratio	(p)	Rate
01	East Kootenay	8,322	44	74.1	0.59	-	5.29
02	West Kootenay - Boundary	8,047	70	71.7	0.98		8.70
03	North Okanagan	11,428	86	101.8	0.85		7.53
04	South Okanagan Similkameen	21,268	174	189.4	0.92		8.18
05	Thompson	14,610	164	130.1	1.26	+	11.23
06	Fraser Valley	30,752	260	273.8	0.95		8.45
07	South Fraser Valley	73,258	692	652.2	1.06		9.45
08	Simon Fraser	39,245	281	349.4	0.80	-	7.16
09	Coast Garibaldi	8,511	75	75.8	0.99		8.81
10	Central Vancouver Island	24,547	198	218.6	0.91		8.07
11	Upper Island/Central Coast	13,880	125	123.6	1.01		9.01
12	Cariboo	9,413	53	83.8	0.63	-	5.63
13	North West	14,281	92	127.2	0.72	-	6.44
14	Peace Liard	10,212	47	90.9	0.52	-	4.60
15	Northern Interior	18,400	215	163.8	1.31	+	11.68
16	Vancouver	59,949	687	533.8	1.29	+	11.46
17	Burnaby	20,252	185	180.3	1.03		9.13
18	North Shore	18,598	135	165.6	0.82	-	7.26
19	Richmond	16,910	140	150.6	0.93		8.28
20	Capital	33,176	288	295.4	0.98		8.68
	B.C. Total	456,121	4,061	4,061.0	1.00		8.90

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of individuals born with one or more Congenital Heart Defect.
HR assignment by usual address at time of birth. See Appendix 1 for ICD9 codes.

Table 30
Cleft Palate/Cleft Lip Defects by Health Region
British Columbia, 1989 - 1998

Health Region		Total Births	Observed	Expected	Ratio	(p)	Rate
01	East Kootenay	8,322	19	20.9	0.91		2.28
02	West Kootenay - Boundary	8,047	22	20.2	1.09		2.73
03	North Okanagan	11,428	26	28.6	0.91		2.28
04	South Okanagan Similkameen	21,268	50	53.3	0.94		2.35
05	Thompson	14,610	38	36.6	1.04		2.60
06	Fraser Valley	30,752	81	77.1	1.05		2.63
07	South Fraser Valley	73,258	165	183.6	0.90		2.25
08	Simon Fraser	39,245	98	98.3	1.00		2.50
09	Coast Garibaldi	8,511	9	21.3	0.42	-	1.06
10	Central Vancouver Island	24,547	49	61.5	0.80		2.00
11	Upper Island/Central Coast	13,880	43	34.8	1.24		3.10
12	Cariboo	9,413	32	23.6	1.36		3.40
13	North West	14,281	43	35.8	1.20		3.01
14	Peace Liard	10,212	29	25.6	1.13		2.84
15	Northern Interior	18,400	60	46.1	1.30	+	3.26
16	Vancouver	59,949	174	150.2	1.16		2.90
17	Burnaby	20,252	55	50.8	1.08		2.72
18	North Shore	18,598	42	46.6	0.90		2.26
19	Richmond	16,910	42	42.4	0.99		2.48
20	Capital	33,176	60	83.1	0.72	-	1.81
	B.C. Total	456,121	1,143	1,143.0	1.00		2.51

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of individuals born with one or more Cleft Palate/Cleft Lip Defect.
HR assignment by usual address at time of birth. See Appendix 1 for ICD9 codes.

Table 31
Congenital Musculoskeletal Deformities by Health Region
British Columbia, 1989 - 1998

Health Region		Total Births	Observed	Expected	Ratio	(p)	Rate
01	East Kootenay	8,322	86	126.2	0.68	-	10.33
02	West Kootenay - Boundary	8,047	97	122.0	0.79	-	12.05
03	North Okanagan	11,428	138	173.3	0.80	-	12.08
04	South Okanagan Similkameen	21,268	261	322.5	0.81	-	12.27
05	Thompson	14,610	225	221.6	1.02		15.40
06	Fraser Valley	30,752	367	466.4	0.79	-	11.93
07	South Fraser Valley	73,258	1,247	1,111.0	1.12	+	17.02
08	Simon Fraser	39,245	746	595.1	1.25	+	19.01
09	Coast Garibaldi	8,511	115	129.1	0.89		13.51
10	Central Vancouver Island	24,547	335	372.3	0.90		13.65
11	Upper Island/Central Coast	13,880	188	210.5	0.89		13.54
12	Cariboo	9,413	115	142.8	0.81	-	12.22
13	North West	14,281	170	216.6	0.78	-	11.90
14	Peace Liard	10,212	121	154.9	0.78	-	11.85
15	Northern Interior	18,400	277	279.0	0.99		15.05
16	Vancouver	59,949	1,263	909.1	1.39	+	21.07
17	Burnaby	20,252	321	307.1	1.05		15.85
18	North Shore	18,598	244	282.0	0.87	-	13.12
19	Richmond	16,910	246	256.4	0.96		14.55
20	Capital	33,176	309	503.1	0.61	-	9.31
	B.C. Total	456,121	6,917	6,917.0	1.00		15.16

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. Observed are counts of individuals born with one or more Congenital Musculoskeletal Deformity.
HR assignment by usual address at time of birth. See Appendix 1 for ICD9 codes.

Table 32
Chromosomal Anomalies by Health Region
British Columbia, 1989 - 1998

Health Region		Total Births	Observed	Expected	Ratio	(p)	Rate
01	East Kootenay	8,322	19	22.6	0.84		2.28
02	West Kootenay - Boundary	8,047	21	21.8	0.96		2.61
03	North Okanagan	11,428	21	31.0	0.68		1.84
04	South Okanagan Similkameen	21,268	58	57.7	1.00		2.73
05	Thompson	14,610	34	39.7	0.86		2.33
06	Fraser Valley	30,752	87	83.5	1.04		2.83
07	South Fraser Valley	73,258	212	198.8	1.07		2.89
08	Simon Fraser	39,245	89	106.5	0.84		2.27
09	Coast Garibaldi	8,511	15	23.1	0.65		1.76
10	Central Vancouver Island	24,547	63	66.6	0.95		2.57
11	Upper Island/Central Coast	13,880	37	37.7	0.98		2.67
12	Cariboo	9,413	21	25.6	0.82		2.23
13	North West	14,281	24	38.8	0.62	-	1.68
14	Peace Liard	10,212	15	27.7	0.54	-	1.47
15	Northern Interior	18,400	40	49.9	0.80		2.17
16	Vancouver	59,949	202	162.7	1.24	+	3.37
17	Burnaby	20,252	50	55.0	0.91		2.47
18	North Shore	18,598	59	50.5	1.17		3.17
19	Richmond	16,910	54	45.9	1.18		3.19
20	Capital	33,176	80	90.1	0.89		2.41
	B.C. Total	456,121	1,238	1,238.0	1.00		2.71

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low.
Observed are counts of individuals born with one or more Chromosomal Anomaly.
HR assignment by usual address at time of birth. See Appendix 1 for ICD9 codes.

Section 3: Congenital Anomalies by Local Health Area

Introduction

The geographic information presented in this report uses the Ministry of Health's revised health regions (HR) and local health areas (LHA). The boundaries of these standard data dissemination areas correspond to those of the Regional Health Boards, Community Health Service Societies, and Community Health Councils. The previous section of this report provided information about total diagnoses, total cases, and five categories of congenital anomalies for the province and for each health region. The five categories of congenital anomalies presented included congenital nervous system defects, congenital anomalies of heart, cleft palate and cleft lip, congenital musculoskeletal deformities, and chromosomal anomalies. This section provides comparable information for a smaller geographic area, the local health area. Tables 33 to 39 provide birth incidence of congenital anomalies for 1989-1998 with the ten years combined, while Figures 13 to 19 show the same information as maps. The geographic assignment is based on the mother's address at the time she gave birth. For information about the factors associated with the defects shown in this section of the report, the reader should refer to the introduction in the previous section. Appendix 1 provides the complete list of congenital anomaly categories and codes used in this section. Caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report.

Highlights

Table 33 and Figure 13 provide birth incidence rates of cases with one or more reported congenital anomaly by local health area, and indicate the areas with a statistically significant ratio between the observed rate and the expected rate. The B.C. rate for all cases with congenital anomalies was 39.48 per 1,000 total births in 1989-1998.

There were 11 LHAs with statistically significant high ratios between observed and expected cases with congenital anomalies; the four highest ratios (with the number of cases in parentheses, followed by the rates) were:

083	Central Coast	1.67	(22)	66.07
163	Vancouver-North East	1.61	(787)	63.42
161	Vancouver-City Centre	1.40	(287)	55.29
040	New Westminster	1.40	(360)	55.27

There were 23 LHAs with statistically significant low ratios between observed and expected cases with congenital anomalies; the three lowest ratios (with the number of cases in parentheses, followed by the rates) were:

078	Enderby	0.43	(14)	17.11
029	Lillooet	0.48	(13)	18.87
017	Princeton	0.49	(9)	19.40

The B.C. rate for all congenital anomaly diagnoses (Table 34 and Figure 14) was 60.67 reported diagnoses per 1,000 total births for 1989-1998.

There were 12 LHAs with statistically significant high ratios between observed and expected reported congenital anomaly diagnoses; the three highest ratios (with the number of diagnoses in parentheses, followed by the rates) were:

163	Vancouver-North East	1.77	(1,331)	107.25
083	Central Coast	1.58	(32)	96.10
040	New Westminster	1.37	(543)	83.36

There were 32 LHAs with statistically significant low ratios between observed and expected reported congenital anomaly diagnoses; the three lowest ratios (with the number of diagnoses in parentheses, followed by the rates) were:

029	Lillooet	0.41	(17)	24.67
016	Keremeos	0.43	(12)	25.92
021	Armstrong-Spallumcheen	0.47	(26)	28.45

The B.C. rate for nervous system defects (Table 35 and Figure 15) was 3.19 diagnoses per 1,000 total births for 1989-1998.

There were six LHAs with statistically significant high ratios between observed and expected diagnoses of nervous system defects; the three highest ratios (with the number of diagnoses in parentheses, followed by the rates) were:

010	Arrow Lakes	2.71	(5)	8.65
030	Hope	2.57	(8)	8.21
080	Kitimat	2.02	(11)	6.46

There were three LHAs with statistically significant low ratios between observed and expected diagnoses of nervous system defects, based on at least five diagnoses of nervous system defects, (with the number of diagnoses in parentheses, followed by the rates):

038	Richmond	0.69	(37)	2.19
037	Delta	0.58	(22)	1.86
024	Kamloops	0.58	(20)	1.86

There were also eight local health areas with no reported congenital nervous system defects in the ten-year period.

The B.C. rate for congenital heart defects (Table 36 and Figure 16) was 8.90 diagnoses per 1,000 total births for 1989-1998.

There were eight LHAs with statistically significant high ratios between observed and expected diagnoses of congenital heart defects; the three highest (with the number of diagnoses in parentheses, followed by the rates) were:

026	North Thompson	2.74	(15)	24.35
055/093	Burns Lake/Eutsuk	1.87	(20)	16.67
163	Vancouver-North East	1.81	(200)	16.12

There were 11 LHAs with statistically significant low ratios between observed and expected diagnoses of congenital heart defects, based on at least five diagnoses of congenital heart defects; the three lowest ratios, (with the number of diagnoses in parentheses, followed by the rates) were:

002	Cranbrook	0.37	(9)	3.25
052	Prince Rupert	0.51	(15)	4.52
059	Peace River South	0.51	(20)	4.57

There was also one local health area with no reported congenital heart defects in the ten-year period.

The B.C. rate for cleft palate/cleft lip (Table 37 and Figure 17) was 2.51 diagnoses per 1,000 total births for 1989-1998.

There were three LHAs with statistically significant high ratios between observed and expected diagnoses of cleft palate/cleft lip, based on at least five diagnoses of cleft palate/cleft lip, (with the number of diagnoses in parentheses, followed by the rates):

032	Hope	3.68	(9)	9.23
162	Vancouver-Downtown East Side	2.14	(31)	5.37
163	Vancouver-North East	1.64	(51)	4.11

There was only one LHA with statistically significant low ratios between observed and expected diagnoses of cleft palate/cleft lip (with the number of diagnoses in parentheses, followed by the rate):

062	Sooke	0.48	(8)	1.21

There were also seven local health areas with no reported cleft palate/cleft lip in the ten-year period.

The B.C. rate for musculoskeletal defects (Table 38 and Figure 18) was 15.16 diagnoses per 1,000 total births for 1989-1998.

There were eight LHAs with statistically significant high ratios between observed and expected diagnoses of musculoskeletal defects; the three highest (with the number of diagnoses in parentheses, followed by the rates) were:

164	Vancouver-West Side	1.68	(261)	25.46
163	Vancouver-North East	1.55	(292)	23.53
040	New Westminster	1.50	(148)	22.72

There were 21 LHAs with statistically significant low ratios between observed and expected diagnoses of musculoskeletal defects, based on at least five diagnoses of musculoskeletal defects; the four lowest ratios, (with the number of diagnoses in parentheses, followed by the rates) were:

078	Enderby	0.40	(5)	6.11
002	Cranbrook	0.48	(20)	7.22
088	Terrace	0.48	(26)	7.32
030	South Cariboo	0.48	(7)	7.33

There was also one local health area with no reported musculoskeletal defects in the ten-year period.

The B.C. rate for chromosomal anomalies (Table 39 and Figure 19) was 2.71 diagnoses per 1,000 total births for 1989-1998.

There were five LHAs with statistically significant high ratios between observed and expected diagnoses of chromosomal anomalies; the three highest ratios (with the number of diagnoses in parentheses, followed by the rates) were:

005	Creston	2.25	(8)	6.11
045	West Vancouver-Bowen Island	1.70	(16)	4.62
163	Vancouver-North East	1.60	(54)	4.35

There was only one LHA with statistically significant low ratios between observed and expected diagnoses of chromosomal anomalies, based on at least five diagnoses, (with the number of diagnoses in parentheses, followed by the rate):

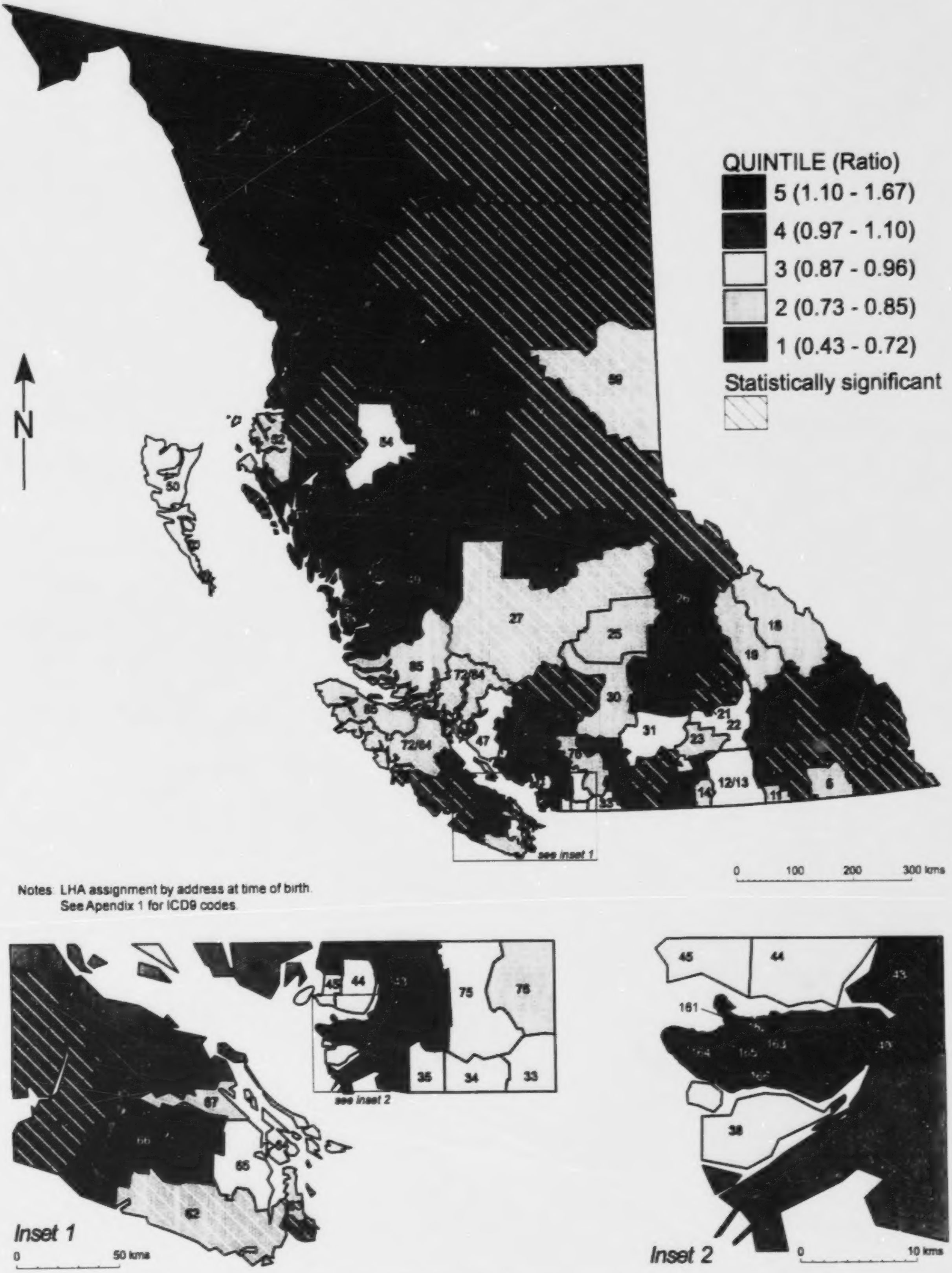
062	Sooke	0.39	(7)	1.06

Table 33
Congenital Anomaly Cases by Local Health Area
British Columbia, 1989 - 1998

Local Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
01 Fernie	1,713	46	67.6	0.68	-	26.85
02 Cranbrook	2,769	64	109.3	0.59	-	23.11
03 Kimberley	744	17	29.4	0.58	-	22.85
04 Windermere	858	23	33.9	0.68		26.81
05 Creston	1,310	39	51.7	0.75		29.77
06/07 Kootenay Lake/Nelson	2,822	59	111.4	0.53	-	20.91
09 Castlegar	1,359	55	53.7	1.03		40.47
10 Arrow Lakes	578	25	22.8	1.10		43.25
11 Trail	2,167	72	85.6	0.84		33.23
12/13 Grand Forks/Kettle Valley	1,121	40	44.3	0.90		35.68
14 Southern Okanagan	1,564	52	61.7	0.84		33.25
15 Penticton	3,851	156	152.0	1.03		40.51
16 Keremeos	463	10	18.3	0.55		21.60
17 Princeton	464	9	18.3	0.49	-	19.40
18 Golden	928	31	36.6	0.85		33.41
19 Revelstoke	1,060	34	41.9	0.81		32.08
20 Salmon Arm	2,699	74	106.6	0.69	-	27.42
21 Armstrong-Spallumcheen	914	21	36.1	0.58	-	22.98
22 Vernon	5,937	222	234.4	0.95		37.39
23 Central Okanagan	14,019	472	553.5	0.85	-	33.67
24 Kamloops	10,770	478	425.2	1.12	+	44.38
25 100 Mile House	1,484	44	58.6	0.75		29.65
26 North Thompson	616	29	24.3	1.19		47.08
27 Cariboo-Chilcotin	4,001	121	158.0	0.77	-	30.24
28 Quesnel	3,384	135	133.6	1.01		39.89
29 Lillooet	689	13	27.2	0.48	-	18.87
30 South Cariboo	955	28	37.7	0.74		29.32
31 Merritt	1,580	56	62.4	0.90		35.44
32 Hope	975	40	38.5	1.04		41.03
33 Chilliwack	8,738	319	345.0	0.92		36.51
34 Abbotsford	15,420	532	608.8	0.87	-	34.50
35 Langley	13,288	500	524.6	0.95		37.63
36 Surrey	48,138	1,903	1,900.4	1.00		39.53
37 Delta	11,832	491	467.1	1.05		41.50
38 Richmond	16,910	625	667.6	0.94		36.96
40 New Westminster	6,514	360	257.2	1.40	+	55.27
41 Burnaby	20,252	796	799.5	1.00		39.30
42 Maple Ridge	9,851	406	388.9	1.04		41.21
43 Coquitlam	22,880	1,013	903.3	1.12	+	44.27
44 North Vancouver	15,135	525	597.5	0.88	-	34.69
45 West Vancouver-Bowen Island	3,463	127	136.7	0.93		36.67
46 Sunshine Coast	2,615	113	103.2	1.09		43.21
47 Powell River	2,173	82	85.8	0.96		37.74
48 Howe Sound	3,723	154	147.0	1.05		41.36
49 Bella Coola Valley	544	26	21.5	1.21		47.79
50 Queen Charlotte	950	33	37.5	0.88		34.74
51 Snow Country	193	5	7.6	0.66		25.91
52 Prince Rupert	3,319	96	131.0	0.73	-	28.92
53 Upper Skeena	906	43	35.8	1.20		47.46
54 Smithers	2,997	111	118.3	0.94		37.04
55/93 Burns Lake/Eutsuk	1,200	46	47.4	0.97		38.33
56 Nechako	2,875	126	113.5	1.11		43.83
57 Prince George	14,325	617	565.5	1.09	+	43.07
59 Peace River South	4,374	142	172.7	0.82	-	32.46
60 Peace River North	4,721	121	186.4	0.65	-	25.63
61 Greater Victoria	20,789	591	820.7	0.72	-	28.43
62 Sooke	6,604	194	260.7	0.74	-	29.38
63 Saanich	4,765	139	188.1	0.74	-	29.17
64 Gulf Islands	1,018	37	40.2	0.92		36.35
65 Cowichan	5,674	215	224.0	0.96		37.89
66 Lake Cowichan	643	28	25.4	1.10		43.55
67 Ladysmith	1,823	57	72.0	0.79		31.27
68 Nanaimo	9,485	367	374.5	0.98		38.69
69 Qualicum	2,787	111	110.0	1.01		39.83
70 Alberni	4,135	117	163.2	0.72	-	28.30
71 Courtenay	5,788	243	228.5	1.06		41.98
72/84 Campbell River/Vancouver Isl. W.	5,358	166	211.5	0.78	-	30.98
75 Mission	4,778	170	188.6	0.90		35.58
76 Agassiz-Harrison	841	25	33.2	0.75		29.73
77 Summerland	907	32	35.8	0.89		35.28
78 Enderby	818	14	32.3	0.43	-	17.11
80 Kitimat	1,703	80	67.2	1.19		46.98
81 Fort Nelson	1,117	27	44.1	0.61	-	24.17
83 Central Coast	333	22	13.2	1.67	+	66.07
85 Vancouver Island North	2,401	77	94.8	0.81		32.07
87/94 Stikine/Telegraph Creek	285	15	11.3	1.33		52.63
88 Terrace	3,553	99	140.3	0.71	-	27.86
92 Nisga'a	375	16	14.8	1.08		42.67
161 Vancouver City Centre	5,191	287	204.9	1.40	+	55.29
162 Vancouver Downtown East Side	5,772	306	227.9	1.34	+	53.01
163 Vancouver North East	12,410	787	489.9	1.61	+	63.42
164 Vancouver West Side	10,251	542	404.7	1.34	+	52.87
165 Vancouver Midtown	11,767	597	464.5	1.29	+	50.74
166 Vancouver South	14,194	645	560.4	1.15	+	45.44
39 Vancouver Total	59,949	3,164	2,366.7	1.34	+	52.78
B.C. Total	456,121	18,007	18,007.0			39.48

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. LHA assignment by address at time of birth, unknown LHA are included in B.C. Total.

Figure 13
Congenital Anomaly Cases by Local Health Area
British Columbia, 1989 - 1998


QUINTILE (Ratio)
5 (1.10 - 1.67)
4 (0.97 - 1.10)
3 (0.87 - 0.96)
2 (0.73 - 0.85)
1 (0.43 - 0.72)
Statistically significant
N
59
54
52
50
49
27
25
26
18
19
85
72/84
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22
23
12/13
14
11
6
47
72/84
33
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0
100
200
300 kms
45
44
43
75
76
35
34
33
see inset 2
67
66
65
62
Inset 1
0
50 kms
45
44
43
161
164
165
163
41
38
Inset 2
0
10 kms

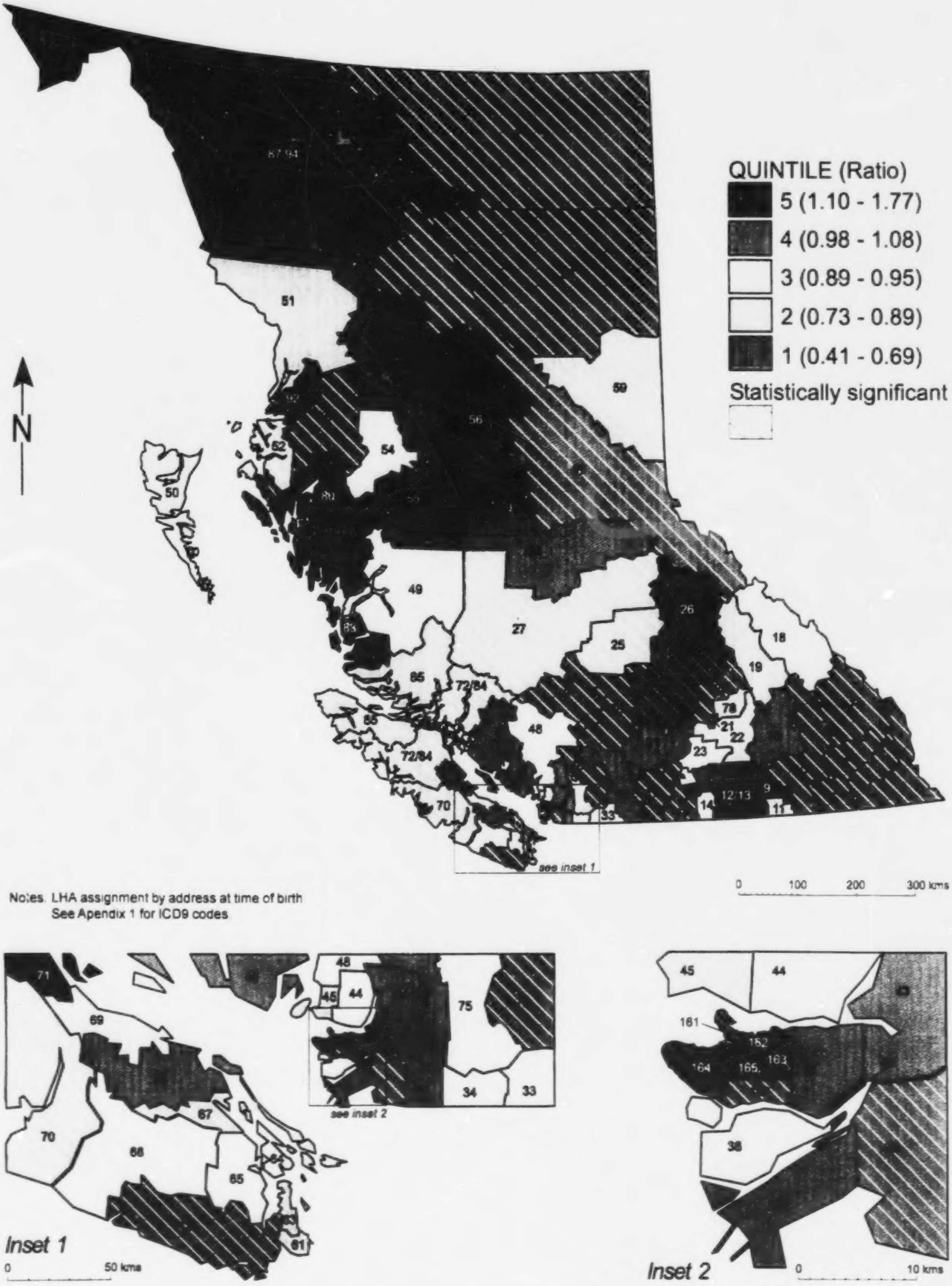
Notes: LHA assignment by address at time of birth.
See Apendix 1 for ICD9 codes.

Table 34
Congenital Anomaly Diagnoses by Local Health Area
British Columbia, 1989 - 1998

Local Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
01 Fernie	1,713	67	103.9	0.64	-	39.11
02 Cranbrook	2,769	83	168.0	0.49	-	29.98
03 Kimberley	744	28	45.1	0.62	-	37.63
04 Windermere	858	33	52.1	0.63	-	38.46
05 Creston	1,310	55	79.5	0.69	-	41.99
06/07 Kootenay Lake/Nelson	2,822	102	171.2	0.60	-	36.15
09 Castlegar	1,359	100	82.5	1.21		73.58
10 Arrow Lakes	578	36	35.1	1.03		62.28
11 Trail	2,167	109	131.5	0.83	-	50.30
12/13 Grand Forks/Kettle Valley	1,121	75	68.0	1.10		66.91
14 Southern Okanagan	1,564	90	94.9	0.95		57.55
15 Penticton	3,851	250	233.7	1.07		64.92
16 Keremeos	463	12	28.1	0.43	-	25.92
17 Princeton	464	16	28.2	0.57	-	34.48
18 Golden	928	51	56.3	0.91		54.96
19 Revelstoke	1,060	52	64.3	0.81		49.06
20 Salmon Arm	2,699	110	163.8	0.67	-	40.76
21 Armstrong-Spallumcheen	914	26	55.5	0.47	-	28.45
22 Vernon	5,937	320	360.2	0.89	-	53.90
23 Central Okanagan	14,019	760	850.6	0.89	-	54.21
24 Kamloops	10,770	740	653.5	1.13	+	68.71
25 100 Mile House	1,484	67	90.0	0.74	-	45.15
26 North Thompson	616	44	37.4	1.18		71.43
27 Cariboo-Chilcotin	4,001	196	242.8	0.81	-	48.99
28 Quesnel	3,384	204	205.3	0.99		60.28
29 Lillooet	689	17	41.8	0.41	-	24.67
30 South Cariboo	955	37	57.9	0.64	-	38.74
31 Merritt	1,580	94	95.9	0.98		59.49
32 Hope	975	58	59.2	0.98		59.49
33 Chilliwack	8,738	491	530.2	0.93		56.19
34 Abbotsford	15,420	883	935.6	0.94		57.26
35 Langley	13,288	799	806.3	0.99		60.13
36 Surrey	48,138	3,103	2,920.8	1.06	+	64.46
37 Delta	11,832	743	717.9	1.03		62.80
38 Richmond	16,910	938	1,026.0	0.91	-	55.47
40 New Westminster	6,514	543	395.2	1.37	+	83.36
41 Burnaby	20,252	1,242	1,228.8	1.01		61.33
42 Maple Ridge	9,851	609	597.7	1.02		61.82
43 Coquitlam	22,880	1,430	1,388.2	1.03		62.50
44 North Vancouver	15,135	818	918.3	0.89	-	54.05
45 West Vancouver-Bowen Island	3,463	180	210.1	0.86	-	51.98
46 Sunshine Coast	2,615	171	158.7	1.08		65.39
47 Powell River	2,173	129	131.9	0.98		59.37
48 Howe Sound	3,723	210	225.9	0.93		56.41
49 Bella Coola Valley	544	31	33.0	0.94		56.99
50 Queen Charlotte	950	48	57.6	0.83		50.53
51 Snow Country	193	9	11.7	0.77		46.63
52 Prince Rupert	3,319	163	201.4	0.81	-	49.11
53 Upper Skeena	906	59	55.0	1.07		65.12
54 Smithers	2,997	163	181.8	0.90		54.39
55/93 Burns Lake/Eutsuk	1,200	87	72.8	1.19		72.50
56 Nechako	2,875	198	174.4	1.14		68.87
57 Prince George	14,325	930	869.2	1.07	+	64.92
59 Peace River South	4,374	203	265.4	0.76	-	46.41
60 Peace River North	4,721	183	286.5	0.64	-	38.76
61 Greater Victoria	20,789	922	1,261.4	0.73	-	44.35
62 Sooke	6,604	271	400.7	0.68	-	41.04
63 Saanich	4,765	234	289.1	0.81	-	49.11
64 Gulf Islands	1,018	57	61.8	0.92		55.99
65 Cowichan	5,674	323	344.3	0.94		56.93
66 Lake Cowichan	643	37	39.0	0.95		57.54
67 Ladysmith	1,823	85	110.6	0.77	-	46.63
68 Nanaimo	9,485	595	575.5	1.03		62.73
69 Qualicum	2,787	152	169.1	0.90		54.54
70 Alberni	4,135	204	250.9	0.81	-	49.34
71 Courtenay	5,788	387	351.2	1.10		66.86
72/84 Campbell River/Vancouver Isl. W	5,358	263	325.1	0.81	-	49.09
75 Mission	4,778	266	289.9	0.92		55.67
76 Agassiz-Harrison	841	35	51.0	0.69	-	41.62
77 Summerland	907	49	55.0	0.89		54.02
78 Enderby	818	42	49.6	0.85		51.35
80 Kitimat	1,703	124	103.3	1.20	+	72.81
81 Fort Nelson	1,117	38	67.8	0.56	-	34.02
83 Central Coast	333	32	20.2	1.58	+	96.10
85 Vancouver Island North	2,401	123	145.7	0.84		51.23
87/94 Stikine/Telegraph Creek	285	19	17.3	1.10		66.67
88 Terrace	3,553	126	215.6	0.58	-	35.46
92 Nisga'a	375	32	22.8	1.41		85.33
161 Vancouver City Centre	5,191	389	315.0	1.24	+	74.94
162 Vancouver Downtown East Side	5,772	454	350.2	1.30	+	78.66
163 Vancouver North East	12,410	1,331	753.0	1.77	+	107.25
164 Vancouver West Side	10,251	727	622.0	1.17	+	70.92
165 Vancouver Midtown	11,767	907	714.0	1.27	+	77.08
166 Vancouver South	14,194	932	861.2	1.08	+	65.66
39 Vancouver Total	59,949	4,740	3,637.4	1.30	+	79.07
B.C. Total	456,121	27,675	27,675.0			60.68

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. LHA assignment by address at time of birth, unknown LHA are included in B.C. Total

Figure 14
Congenital Anomaly Diagnoses by Local Health Area
British Columbia, 1989 - 1998


QUINTILE (Ratio)
5 (1.10 - 1.77)
4 (0.98 - 1.08)
3 (0.89 - 0.95)
2 (0.73 - 0.89)
1 (0.41 - 0.69)
Statistically significant
N
87/94
51
59
92
56
52
54
50
80
55
49
27
26
25
18
83
19
85
72/84
78
21
22
48
23
72/84
9
12/13
70
14
11
33
see inset 1
0
100
200
300 kms
71
69
67
70
66
65
64
63
61
Inset 1
0
50 kms
46
45
44
75
34
33
see inset 2
45
44
161
162
163
164
165
38
Inset 2
0
10 kms

Notes. LHA assignment by address at time of birth
See Apendix 1 for ICD9 codes

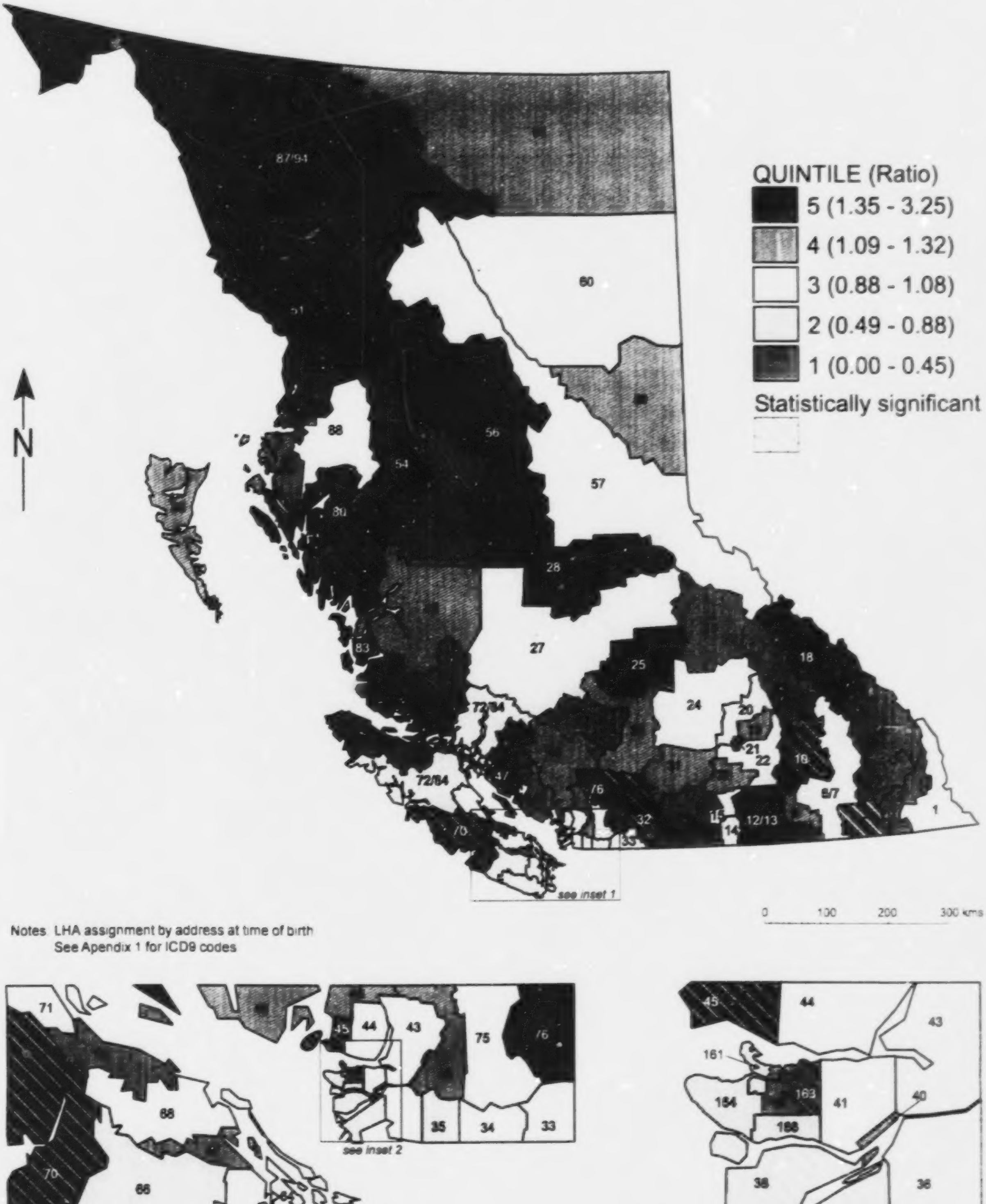
Table 35

Congenital Nervous System Defects by Local Health Area British Columbia, 1989 - 1998

Local Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
01 Fernie	1,713	5	5.5	0.92		2.92
02 Cranbrook	2,769	3	8.8	0.34	(-)	1.08
03 Kimberley	744	1	2.4	0.42		1.34
04 Windermere	858	-	2.7	-		-
05 Creston	1,310	-	4.2	-	-	-
06/07 Kootenay Lake/Nelson	2,822	6	9.0	0.67		2.13
09 Castlegar	1,359	5	4.3	1.15		3.68
10 Arrow Lakes	578	5	1.8	2.71	+	8.65
11 Trail	2,167	3	6.9	0.43		1.38
12/13 Grand Forks/Kettle Valley	1,121	5	3.6	1.40		4.46
14 Southern Okanagan	1,564	4	5.0	0.80		2.56
15 Penticton	3,851	8	12.3	0.65		2.08
16 Keremeos	463	-	1.5	-		-
17 Princeton	464	-	1.5	-		-
18 Golden	928	4	3.0	1.35		4.31
19 Revelstoke	1,060	1	3.4	0.30		0.94
20 Salmon Arm	2,699	5	8.6	0.58		1.85
21 Armstrong-Spallumcheen	914	-	2.9	-		-
22 Vernon	5,937	12	18.9	0.63		2.02
23 Central Okanagan	14,019	50	44.7	1.12		3.57
24 Kamloops	10,770	20	34.4	0.58	-	1.86
25 100 Mile House	1,484	8	4.7	1.69		5.39
26 North Thompson	616	-	2.0	-		-
27 Cariboo-Chilcotin	4,001	11	12.8	0.86		2.75
28 Quesnel	3,384	15	10.8	1.39		4.43
29 Lillooet	689	1	2.2	0.45		1.45
30 South Cariboo	955	4	3.1	1.31		4.19
31 Merritt	1,580	6	5.0	1.19		3.80
32 Hope	975	8	3.1	2.57	+	8.21
33 Chilliwack	8,738	26	27.9	0.93		2.98
34 Abbotsford	15,420	53	49.2	1.08		3.44
35 Langley	13,288	33	42.4	0.78		2.48
36 Surrey	48,138	162	153.6	1.05		3.37
37 Delta	11,832	22	37.7	0.58	-	1.86
38 Richmond	16,910	37	53.9	0.69	-	2.19
40 New Westminster	6,514	25	20.8	1.20		3.84
41 Burnaby	20,252	70	64.6	1.08		3.46
42 Maple Ridge	9,851	41	31.4	1.30		4.16
43 Coquitlam	22,880	78	73.0	1.07		3.41
44 North Vancouver	15,135	46	48.3	0.95		3.04
45 West Vancouver-Bowen Island	3,463	20	11.1	1.81	+	5.78
46 Sunshine Coast	2,615	10	8.3	1.20		3.82
47 Powell River	2,173	12	6.9	1.73		5.52
48 Howe Sound	3,723	13	11.9	1.09		3.49
49 Bella Coola Valley	544	2	1.7	1.15		3.68
50 Queen Charlotte	950	4	3.0	1.32		4.21
51 Snow Country	193	2	0.6	3.25		10.36
52 Prince Rupert	3,319	12	10.6	1.13		3.62
53 Upper Skeena	906	-	2.9	-		-
54 Smithers	2,997	13	9.6	1.36		4.34
55/93 Burns Lake/Eutsuk	1,200	1	3.8	0.26		0.83
56 Nechako	2,875	14	9.2	1.53		4.87
57 Prince George	14,325	42	45.7	0.92		2.93
59 Peace River South	4,374	18	14.0	1.29		4.12
60 Peace River North	4,721	16	15.1	1.06		3.39
61 Greater Victoria	20,789	71	66.3	1.07		3.42
62 Sooke	6,604	16	21.1	0.76		2.42
63 Saanich	4,765	10	15.2	0.66		2.10
64 Gulf Islands	1,018	3	3.3	0.92		2.95
65 Cowichan	5,674	16	18.1	0.88		2.82
66 Lake Cowichan	643	1	2.1	0.49		1.56
67 Ladysmith	1,823	7	5.8	1.20		3.84
68 Nanaimo	9,485	30	30.3	0.99		3.16
69 Qualicum	2,787	1	8.9	0.11	(-)	0.36
70 Alberni	4,135	26	13.2	1.97	+	6.29
71 Courtenay	5,788	17	18.5	0.92		2.94
72/84 Campbell River/Vancouver Isl. W.	5,358	15	17.1	0.88		2.80
75 Mission	4,778	15	15.2	0.98		3.14
76 Agassiz-Harrison	841	4	2.7	1.49		4.76
77 Summerland	907	1	2.9	0.35		1.10
78 Enderby	818	3	2.6	1.15		3.67
80 Kitimat	1,703	11	5.4	2.02	+	6.46
81 Fort Nelson	1,117	4	3.6	1.12		3.58
83 Central Coast	333	2	1.1	1.88		6.01
85 Vancouver Island North	2,401	3	7.7	0.39		1.25
87/94 Stikine/Telegraph Creek	285	2	0.9	2.20		7.02
88 Terrace	3,553	10	11.3	0.88		2.81
92 Nisga'a	375	-	1.2	-		-
161 Vancouver City Centre	5,191	10	16.6	0.60		1.93
162 Vancouver Downtown East Side	5,772	22	18.4	1.19		3.81
163 Vancouver North East	12,410	60	39.6	1.52	+	4.83
164 Vancouver West Side	10,251	22	32.7	0.67		2.15
165 Vancouver Midtown	11,767	46	37.5	1.23		3.91
166 Vancouver South	14,194	37	45.3	0.82		2.61
39 Vancouver Total	59,949	197	191.2	1.03		3.29
B.C. Total	456,121	1,455	1,455.0	1.00		3.19

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. LHA assignment by address at time of birth, unknown LHA are included in B.C. Total.

Figure 15
Congenital Nervous System Defects by Local Health Area
British Columbia, 1989 - 1998


QUINTILE (Ratio)
5 (1.35 - 3.25)
4 (1.09 - 1.32)
3 (0.88 - 1.08)
2 (0.49 - 0.88)
1 (0.00 - 0.45)
Statistically significant
N
87/94
81
60
88
54
56
57
80
28
27
83
25
18
24
20
72/84
21
22
19
47
76
6/7
1
32
15
12/13
14
33
70
see inset 1
0 100 200 300 kms
71
45
44
43
75
76
68
35
34
33
see inset 2
70
66
65
62
61
Inset 1
0 50 kms
45
44
43
161
163
164
41
40
166
38
36
37
Inset 2
0 10 kms

Notes: LHA assignment by address at time of birth
See Apendix 1 for ICD9 codes

Table 36

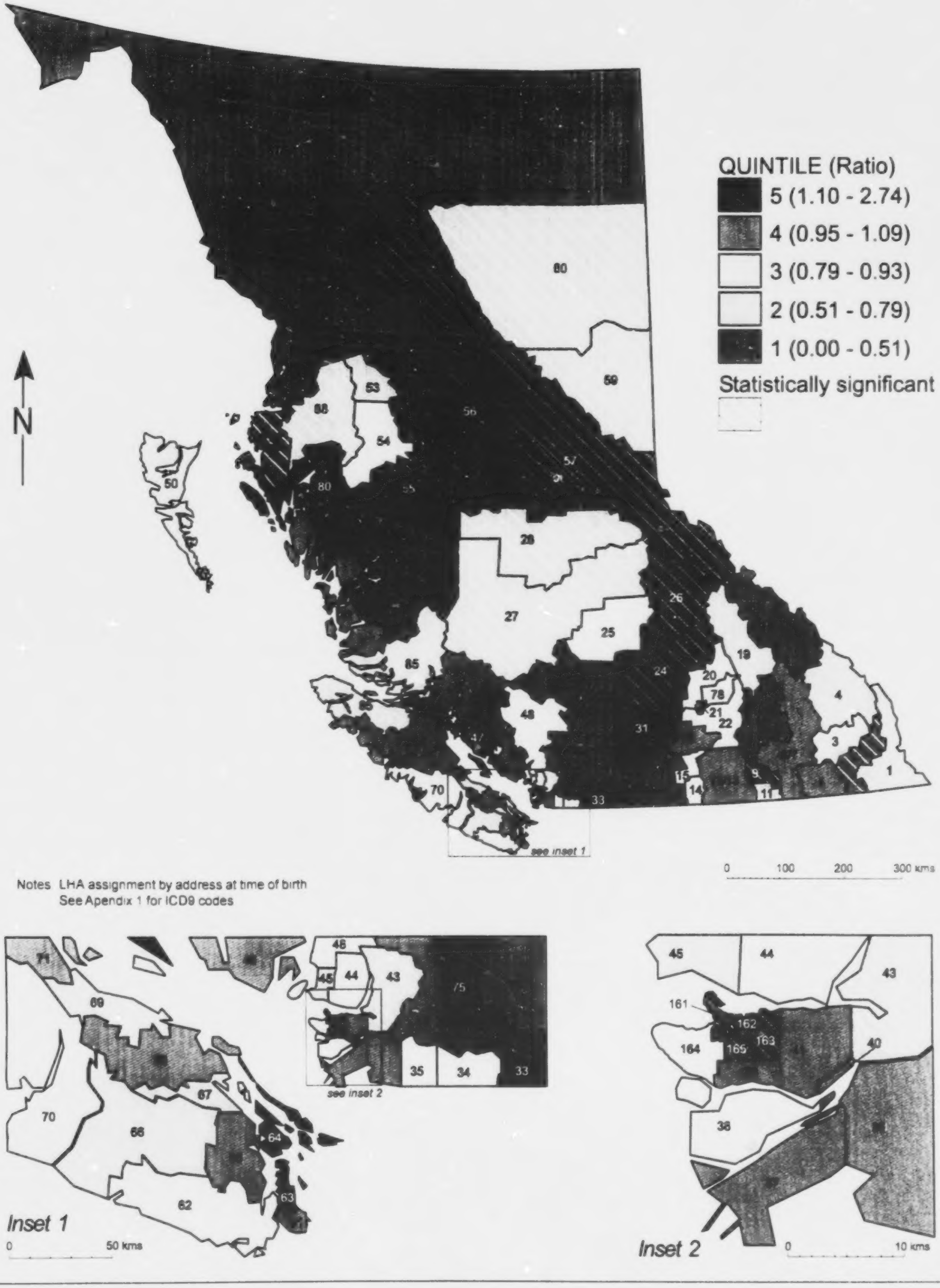
Congenital Heart Defects by Local Health Area
British Columbia, 1989 - 1998

Local Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
01 Fernie	1,713	8	15.3	0.52		4.67
02 Cranbrook	2,769	9	24.7	0.37	-	3.25
03 Kimberley	744	6	6.6	0.91		8.06
04 Windermere	858	6	7.6	0.79		6.99
05 Creston	1,310	12	11.7	1.03		9.16
06/07 Kootenay Lake/Nelson	2,822	24	25.1	0.96		8.50
09 Castlegar	1,359	21	12.1	1.74	+	15.45
10 Arrow Lakes	578	2	5.2	0.39		3.46
11 Trail	2,167	13	19.3	0.67		6.00
12/13 Grand Forks/Kettle Valley	1,121	10	10.0	1.00		8.92
14 Southern Okanagan	1,564	12	13.9	0.86		7.67
15 Penticton	3,851	27	34.3	0.79		7.01
16 Keremeos	463	1	4.1	0.24		2.16
17 Princeton	464	2	4.1	0.48		4.31
18 Golden	928	3	8.3	0.36		3.23
19 Revelstoke	1,060	5	9.4	0.53		4.72
20 Salmon Arm	2,699	22	24.0	0.92		8.15
21 Armstrong-Spallumcheen	914	4	8.1	0.49		4.38
22 Vernon	5,937	49	52.9	0.93		8.25
23 Central Okanagan	14,019	130	124.8	1.04		9.27
24 Kamloops	10,770	126	95.9	1.31	+	11.70
25 100 Mile House	1,484	11	13.2	0.83		7.41
26 North Thompson	616	15	5.5	2.74	+	24.35
27 Cariboo-Chilcotin	4,001	22	35.6	0.62	-	5.50
28 Quesnel	3,384	18	30.1	0.60	-	5.32
29 Lillooet	689	3	6.1	0.49		4.35
30 South Cariboo	955	2	8.5	0.24	(-)	2.09
31 Merritt	1,580	18	14.1	1.28		11.39
32 Hope	975	1	8.7	0.12	(-)	1.03
33 Chilliwack	8,738	89	77.8	1.14		10.19
34 Abbotsford	15,420	120	137.3	0.87		7.78
35 Langley	13,288	109	118.3	0.92		8.20
36 Surrey	48,138	469	428.6	1.09		9.74
37 Delta	11,832	114	105.3	1.08		9.63
38 Richmond	16,910	140	150.6	0.93		8.28
40 New Westminster	6,514	62	58.0	1.07		9.52
41 Burnaby	20,252	185	180.3	1.03		9.13
42 Maple Ridge	9,851	92	87.7	1.05		9.34
43 Coquitlam	22,880	127	203.7	0.62	-	5.55
44 North Vancouver	15,135	111	134.8	0.82	-	7.33
45 West Vancouver-Bowen Island	3,463	24	30.8	0.78		6.93
46 Sunshine Coast	2,615	24	23.3	1.03		9.18
47 Powell River	2,173	23	19.4	1.19		10.58
48 Howe Sound	3,723	28	33.2	0.84		7.52
49 Bella Coola Valley	544	2	4.8	0.41		3.68
50 Queen Charlotte	950	6	8.5	0.71		6.32
51 Snow Country	193	-	1.7	-		-
52 Prince Rupert	3,319	15	29.6	0.51	-	4.52
53 Upper Skeena	906	5	8.1	0.62		5.52
54 Smithers	2,997	22	26.7	0.82		7.34
55/93 Burns Lake/Eutsuk	1,200	20	10.7	1.87	+	16.67
56 Nechako	2,875	34	25.6	1.33		11.83
57 Prince George	14,325	161	127.5	1.26	+	11.24
59 Peace River South	4,374	20	38.9	0.51	-	4.57
60 Peace River North	4,721	26	42.0	0.62	-	5.51
61 Greater Victoria	20,789	175	185.1	0.95		8.42
62 Sooke	6,604	51	58.8	0.87		7.72
63 Saanich	4,765	50	42.4	1.18		10.49
64 Gulf Islands	1,018	12	9.1	1.32		11.79
65 Cowichan	5,674	53	50.5	1.05		9.34
66 Lake Cowichan	643	3	5.7	0.52		4.67
67 Ladysmith	1,823	10	16.2	0.62		5.49
68 Nanaimo	9,485	86	84.5	1.02		9.07
69 Qualicum	2,787	14	24.8	0.56	-	5.02
70 Alberni	4,135	32	36.8	0.87		7.74
71 Courtenay	5,788	55	51.5	1.07		9.50
72/84 Campbell River/Vancouver Isl. W	5,358	52	47.7	1.09		9.71
75 Mission	4,778	47	42.5	1.10		9.84
76 Agassiz-Harrison	841	3	7.5	0.40		3.57
77 Summerland	907	2	8.1	0.25	(-)	2.21
78 Enderby	818	6	7.3	0.82		7.34
80 Kitimat	1,703	22	15.2	1.45		12.92
81 Fort Nelson	1,117	1	10.0	0.10	(-)	0.90
83 Central Coast	333	3	3.0	1.01		9.01
85 Vancouver Island North	2,401	15	21.4	0.70		6.25
87/94 Stikine/Telegraph Creek	285	1	2.5	0.39		3.51
88 Terrace	3,553	20	31.6	0.63	-	5.63
92 Nisga'a	375	1	3.3	0.30		2.67
161 Vancouver City Centre	5,191	65	46.2	1.41	+	12.52
162 Vancouver Downtown East Side	5,772	61	51.4	1.19		10.57
163 Vancouver North East	12,410	200	110.5	1.81	+	16.12
164 Vancouver West Side	10,251	72	91.3	0.79	-	7.02
165 Vancouver Midtown	11,767	154	104.8	1.47	+	13.09
166 Vancouver South	14,194	135	126.4	1.07		9.51
39 Vancouver Total	59,949	687	533.8	1.29	+	11.46
B.C. Total	456,121	4,061	4,061.0	1.00		8.90

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. LHA assignment by address at time of birth, unknown LHA are included in B.C. Total.

Figure 16

Congenital Heart Defects by Local Health Area British Columbia, 1989 - 1998


QUINTILE (Ratio)
5 (1.10 - 2.74)
4 (0.95 - 1.09)
3 (0.79 - 0.93)
2 (0.51 - 0.79)
1 (0.00 - 0.51)
Statistically significant
N
80
59
53
88
54
56
57
50
80
55
28
27
25
26
19
85
24
20
78
21
22
4
48
31
3
1
47
15
14
9
11
70
33
see inset 1
0
100
200
300 kms
Inset 1
71
69
46
45
44
43
75
35
34
33
see inset 2
67
70
66
64
62
63
0
50 kms
Inset 2
45
44
43
161
162
163
164
165
40
38
0
10 kms

Notes LHA assignment by address at time of birth
See Apendix 1 for ICD9 codes

Table 37

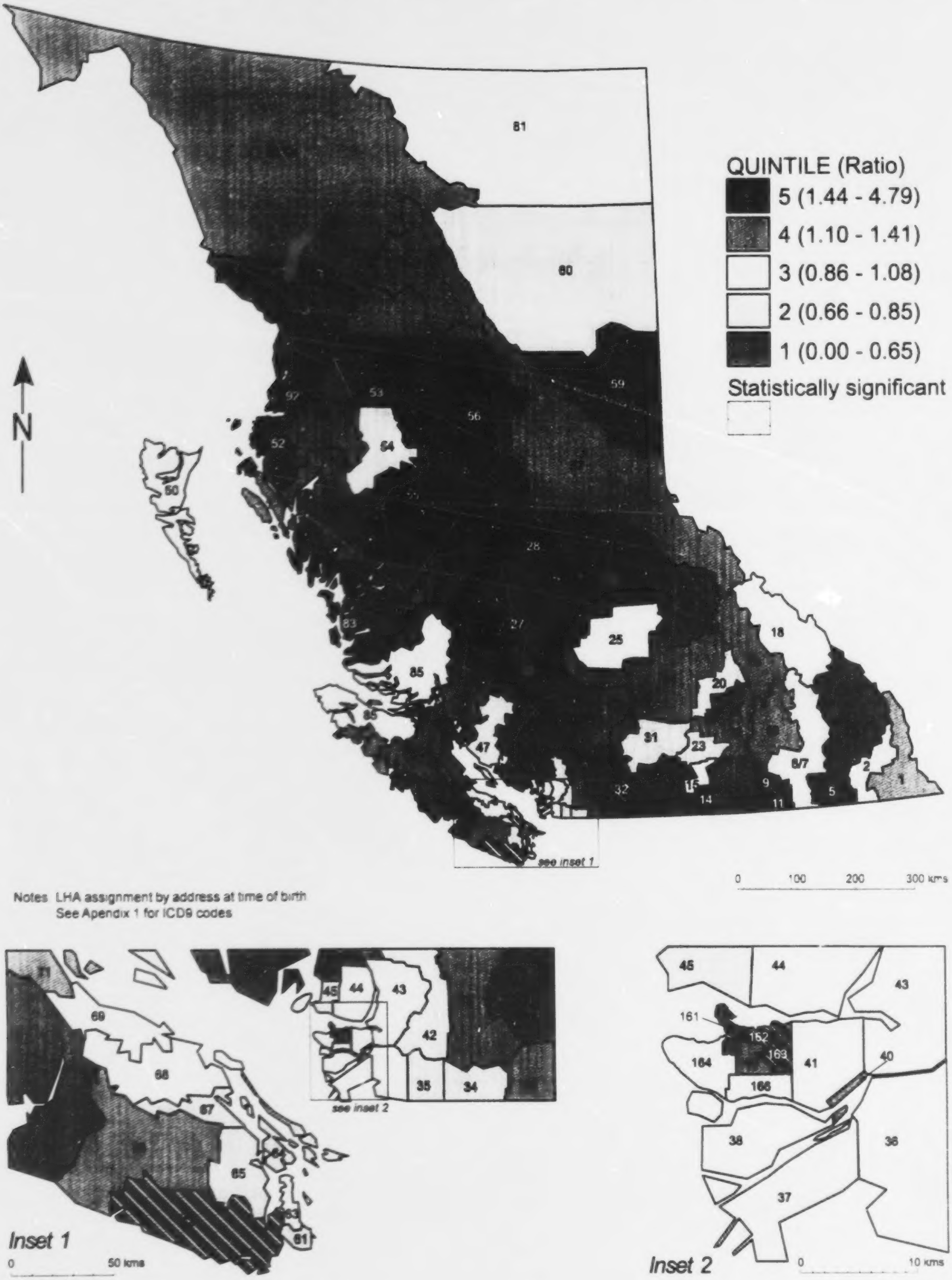
Cleft Palate/Cleft Lip Defects by Local Health Area British Columbia, 1989 - 1998

Local	Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
01	Fernie	1,713	5	4.3	1.16		2.92
02	Cranbrook	2,769	5	6.9	0.72		1.81
03	Kimberley	744	1	1.9	0.54		1.34
04	Windermere	858	1	2.2	0.47		1.17
05	Creston	1,310	5	3.3	1.52		3.82
06/07	Kootenay Lake/Nelson	2,822	5	7.1	0.71		1.77
09	Castlegar	1,359	6	3.4	1.76		4.42
10	Arrow Lakes	578	2	1.5	1.38		3.46
11	Trail	2,167	9	5.4	1.66		4.15
12/13	Grand Forks/Kettle Valley	1,121	-	2.8	-		-
14	Southern Okanagan	1,564	6	3.9	1.53		3.84
15	Penticton	3,851	9	9.7	0.93		2.34
16	Keremeos	463	-	1.2	-		-
17	Princeton	464	-	1.2	-		-
18	Golden	928	2	2.3	0.86		2.16
19	Revelstoke	1,060	3	2.7	1.13		2.83
20	Salmon Arm	2,699	5	6.8	0.74		1.85
21	Armstrong-Spallumcheen	914	1	2.3	0.44		1.09
22	Vernon	5,937	17	14.9	1.14		2.86
23	Central Okanagan	14,019	30	35.1	0.85		2.14
24	Kamloops	10,770	30	27.0	1.11		2.79
25	100 Mile House	1,484	4	3.7	1.08		2.70
26	North Thompson	616	1	1.5	0.65		1.62
27	Cariboo-Chilcotin	4,001	15	10.0	1.50		3.75
28	Quesnel	3,384	13	8.5	1.53		3.84
29	Lillooet	689	1	1.7	0.58		1.45
30	South Cariboo	955	3	2.4	1.25		3.14
31	Merritt	1,580	3	4.0	0.76		1.90
32	Hope	975	9	2.4	3.68	+	9.23
33	Chilliwack	8,738	27	21.9	1.23		3.09
34	Abbotsford	15,420	30	38.6	0.78		1.95
35	Langley	13,288	28	33.3	0.84		2.11
36	Surrey	48,138	109	120.6	0.90		2.26
37	Delta	11,832	28	29.7	0.94		2.37
38	Richmond	16,910	42	42.4	0.99		2.48
40	New Westminster	6,514	18	16.3	1.10		2.76
41	Burnaby	20,252	55	50.8	1.08		2.72
42	Maple Ridge	9,851	18	24.7	0.73		1.83
43	Coquitlam	22,880	62	57.3	1.08		2.71
44	North Vancouver	15,135	35	37.9	0.92		2.31
45	West Vancouver-Bowen Island	3,463	7	8.7	0.81		2.02
46	Sunshine Coast	2,615	3	6.6	0.46		1.15
47	Powell River	2,173	4	5.5	0.73		1.84
48	Howe Sound	3,723	2	9.3	0.21	(-)	0.54
49	Bella Coola Valley	544	-	1.4	-		-
50	Queen Charlotte	950	2	2.4	0.84		2.11
51	Snow Country	193	-	0.5	-		-
52	Prince Rupert	3,319	12	8.3	1.44		3.62
53	Upper Skeena	906	4	2.3	1.76		4.42
54	Smithers	2,997	5	7.5	0.67		1.67
55/93	Burns Lake/Eutsuk	1,200	6	3.0	2.00		5.00
56	Nechako	2,875	11	7.2	1.53		3.83
57	Prince George	14,325	43	35.9	1.20		3.00
59	Peace River South	4,374	17	11.0	1.55		3.89
60	Peace River North	4,721	9	11.8	0.76		1.91
61	Greater Victoria	20,789	38	52.1	0.73		1.83
62	Sooke	6,604	8	16.6	0.48	-	1.21
63	Saanich	4,765	12	11.9	1.00		2.52
64	Gulf Islands	1,018	2	2.6	0.78		1.96
65	Cowichan	5,674	10	14.2	0.70		1.76
66	Lake Cowichan	643	2	1.6	1.24		3.11
67	Ladysmith	1,823	3	4.6	0.66		1.65
68	Nanaimo	9,485	21	23.8	0.88		2.21
69	Qualicum	2,787	7	7.0	1.00		2.51
70	Alberni	4,135	6	10.4	0.58		1.45
71	Courtenay	5,788	16	14.5	1.10		2.76
72/84	Campbell River/Vancouver Isl. W.	5,358	17	13.4	1.27		3.17
75	Mission	4,778	15	12.0	1.25		3.14
76	Agassiz-Harrison	841	-	2.1	-		-
77	Summerland	907	5	2.3	2.20		5.51
78	Enderby	818	-	2.1	-		-
80	Kitimat	1,703	6	4.3	1.41		3.52
81	Fort Nelson	1,117	3	2.8	1.07		2.69
83	Central Coast	333	4	0.8	4.79	(+)	12.01
85	Vancouver Island North	2,401	6	6.0	1.00		2.50
87/94	Stikine/Telegraph Creek	285	1	0.7	1.40		3.51
88	Terrace	3,553	11	8.9	1.24		3.10
92	Nisga'a	375	2	0.9	2.13		5.33
161	Vancouver City Centre	5,191	4	13.0	0.31	(-)	0.77
162	Vancouver Downtown East Side	5,772	31	14.5	2.14	+	5.37
163	Vancouver North East	12,410	51	31.1	1.64	+	4.11
164	Vancouver West Side	10,251	22	25.7	0.86		2.15
165	Vancouver Midtown	11,767	33	29.5	1.12		2.80
166	Vancouver South	14,194	33	35.6	0.93		2.32
39	**Vancouver Total**	59,949	174	150.2	1.16		2.90
	B.C. Total	456,121	1,143	1,143.0	1.00		2.51

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. LHA assignment by address at time of birth, unknown LHA are included in B.C. Total.

Figure 17

Cleft Palate/Cleft Lip Defects by Local Health Area
British Columbia, 1989 - 1998


81
60
59
97
53
56
52
54
50
55
28
83
27
25
18
85
20
86
31
23
47
8/7
2
1
32
15
14
9
11
5
see inset 1
N
QUINTILE (Ratio)
5 (1.44 - 4.79)
4 (1.10 - 1.41)
3 (0.86 - 1.08)
2 (0.66 - 0.85)
1 (0.00 - 0.65)
Statistically significant
0 100 200 300 kms
71
69
68
67
64
65
63
61
45
44
43
42
35
34
see inset 2
Inset 1
0 50 kms
45
44
43
161
162
163
164
41
40
166
38
36
37
Inset 2
0 10 kms

Notes LHA assignment by address at time of birth
See Apendix 1 for ICD9 codes

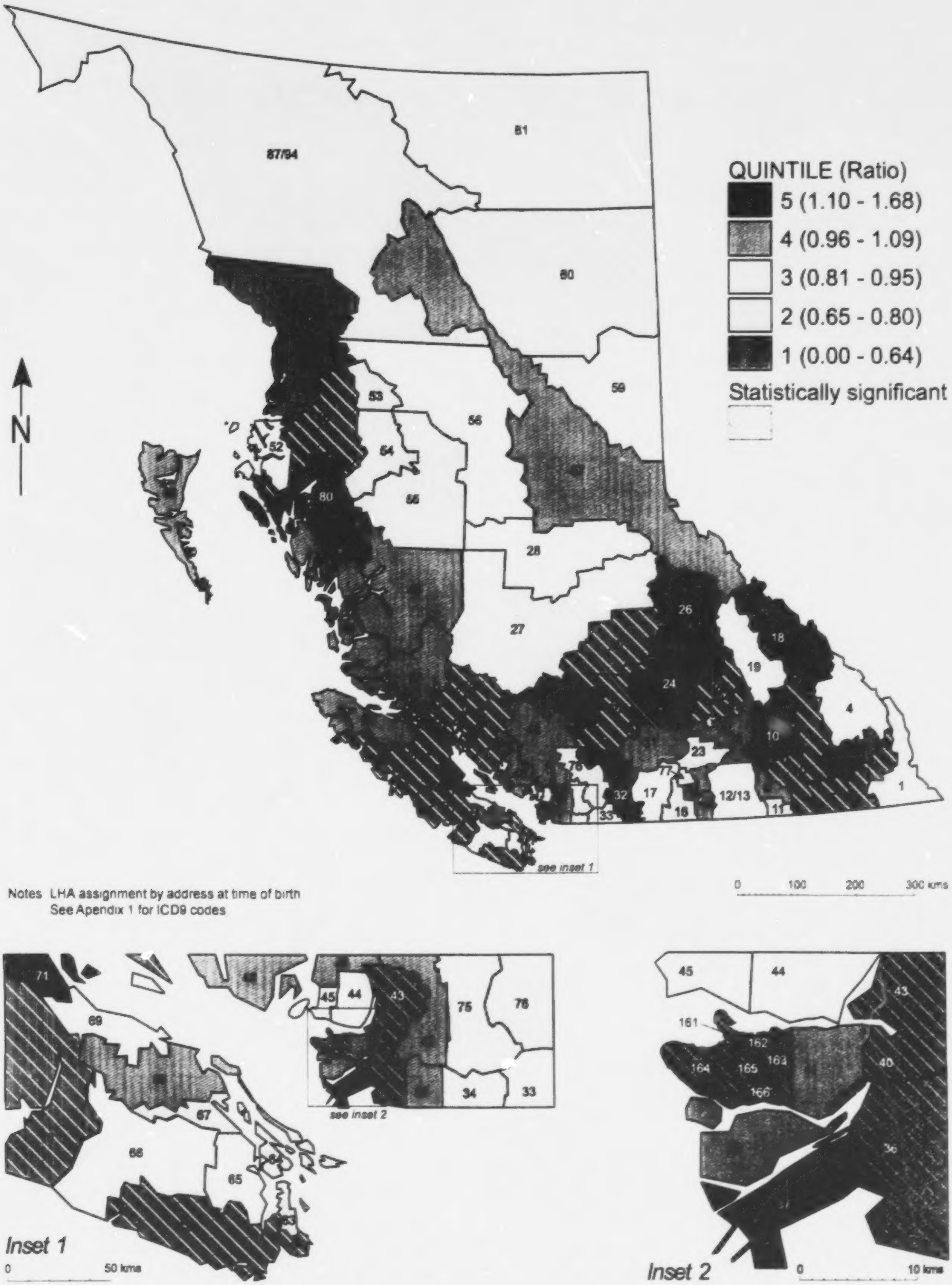
Table 38

Congenital Musculoskeletal Deformities by Local Health Area British Columbia, 1989 - 1998

Local Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
01 Fernie	1,713	21	26.0	0.81		12.26
02 Cranbrook	2,769	20	42.0	0.48	-	7.22
03 Kimberley	744	5	11.3	0.44		6.72
04 Windermere	858	12	13.0	0.92		13.99
05 Creston	1,310	10	19.9	0.50	-	7.63
06/07 Kootenay Lake/Nelson	2,822	21	42.8	0.49	-	7.44
09 Castlegar	1,359	22	20.6	1.07		16.19
10 Arrow Lakes	578	12	8.8	1.37		20.76
11 Trail	2,167	26	32.9	0.79		12.00
12/13 Grand Forks/Kettle Valley	1,121	16	17.0	0.94		14.27
14 Southern Okanagan	1,564	25	23.7	1.05		15.98
15 Penticton	3,851	60	58.4	1.03		15.58
16 Keremeos	463	5	7.0	0.71		10.80
17 Princeton	464	6	7.0	0.85		12.93
18 Golden	928	18	14.1	1.28		19.40
19 Revelstoke	1,060	14	16.1	0.87		13.21
20 Salmon Arm	2,699	23	40.9	0.56	-	8.52
21 Armstrong-Spallumcheen	914	9	13.9	0.65		9.85
22 Vernon	5,937	87	90.0	0.97		14.65
23 Central Okanagan	14,019	155	212.6	0.73	-	11.06
24 Kamloops	10,770	182	163.3	1.11		16.90
25 100 Mile House	1,484	13	22.5	0.58	-	8.76
26 North Thompson	616	11	9.3	1.18		17.86
27 Cariboo-Chilcotin	4,001	45	60.7	0.74	-	11.25
28 Quesnel	3,384	48	51.3	0.94		14.18
29 Lillooet	689	2	10.5	0.19	(-)	2.90
30 South Cariboo	955	7	14.5	0.48	-	7.33
31 Merritt	1,580	23	24.0	0.96		14.56
32 Hope	975	17	14.8	1.15		17.44
33 Chilliwack	8,738	108	132.5	0.82	-	12.36
34 Abbotsford	15,420	186	233.8	0.80	-	12.06
35 Langley	13,288	198	201.5	0.98		14.90
36 Surrey	48,138	851	730.0	1.17	+	17.68
37 Delta	11,832	198	179.4	1.10		16.73
38 Richmond	16,910	246	256.4	0.96		14.55
40 New Westminster	6,514	148	98.8	1.50	+	22.72
41 Burnaby	20,252	321	307.1	1.05		15.85
42 Maple Ridge	9,851	154	149.4	1.03		15.63
43 Coquitlam	22,880	444	347.0	1.28	+	19.41
44 North Vancouver	15,135	198	229.5	0.86	-	13.08
45 West Vancouver-Bowen Island	3,463	46	52.5	0.88		13.28
46 Sunshine Coast	2,615	39	39.7	0.98		14.91
47 Powell River	2,173	21	33.0	0.64	-	9.66
48 Howe Sound	3,723	55	56.5	0.97		14.77
49 Bella Coola Valley	544	9	8.3	1.09		16.54
50 Queen Charlotte	950	14	14.4	0.97		14.74
51 Snow Country	193	-	2.9	-		-
52 Prince Rupert	3,319	48	50.3	0.95		14.46
53 Upper Skeena	906	10	13.7	0.73		11.04
54 Smithers	2,997	36	45.5	0.79		12.01
55/93 Burns Lake/Eutsuk	1,200	12	18.2	0.66		10.00
56 Nechako	2,875	36	43.6	0.83		12.52
57 Prince George	14,325	229	217.2	1.05		15.99
59 Peace River South	4,374	59	66.3	0.89		13.49
60 Peace River North	4,721	48	71.6	0.67	-	10.17
61 Greater Victoria	20,789	194	315.3	0.62	-	9.33
62 Sooke	6,604	58	100.2	0.58	-	8.78
63 Saanich	4,765	47	72.3	0.65	-	9.86
64 Gulf Islands	1,018	10	15.4	0.65		9.82
65 Cowichan	5,674	81	86.1	0.94		14.28
66 Lake Cowichan	643	8	9.8	0.82		12.44
67 Ladysmith	1,823	18	27.7	0.65		9.87
68 Nanaimo	9,485	157	143.8	1.09		16.55
69 Qualicum	2,787	35	42.3	0.83		12.56
70 Alberni	4,135	36	62.7	0.57	-	8.71
71 Courtenay	5,788	99	87.8	1.13		17.10
72/84 Campbell River/Vancouver Isl. W.	5,358	48	81.3	0.59	-	8.96
75 Mission	4,778	47	72.5	0.65	-	9.84
76 Agassiz-Harrison	841	9	12.8	0.71		10.70
77 Summerland	907	10	13.8	0.73		11.03
78 Enderby	818	5	12.4	0.40	-	6.11
80 Kitimat	1,703	30	25.8	1.16		17.62
81 Fort Nelson	1,117	14	16.9	0.83		12.53
83 Central Coast	333	5	5.1	0.99		15.02
85 Vancouver Island North	2,401	36	36.4	0.99		14.99
87/94 Stikine/Telegraph Creek	285	3	4.3	0.69		10.53
88 Terrace	3,553	26	53.9	0.48	-	7.32
92 Nisga'a	375	3	5.7	0.53		8.00
161 Vancouver City Centre	5,191	116	78.7	1.47	+	22.35
162 Vancouver Downtown East Side	5,772	104	87.5	1.19		18.02
163 Vancouver North East	12,410	292	188.2	1.55	+	23.53
164 Vancouver West Side	10,251	261	155.5	1.68	+	25.46
165 Vancouver Midtown	11,767	243	178.4	1.36	+	20.65
166 Vancouver South	14,194	247	215.3	1.15	+	17.40
39 Vancouver Total	59,949	1,263	909.1	1.39	+	21.07
B.C. Total	456,121	6,917	6,917.0	1.00		15.16

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected ($p<0.05$, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. LHA assignment by address at time of birth, unknown LHA are included in B.C. Total

Figure 18
Congenital Musculoskeletal Deformities by Local Health Area
British Columbia, 1989 - 1998


QUINTILE (Ratio)
5 (1.10 - 1.68)
4 (0.96 - 1.09)
3 (0.81 - 0.95)
2 (0.65 - 0.80)
1 (0.00 - 0.64)
Statistically significant
N
87/94
81
60
59
56
53
54
55
52
80
28
27
26
18
19
24
4
10
23
1
76
77
32
17
16
12/13
11
33
see inset 1
0 100 200 300 kms
71
69
67
66
65
64
63
45
44
43
75
78
34
33
see inset 2
Inset 1
0 50 kms
45
44
43
161
162
163
164
165
166
40
36
37
Inset 2
0 10 kms

Notes LHA assignment by address at time of birth
See Apendix 1 for ICD9 codes

Table 39

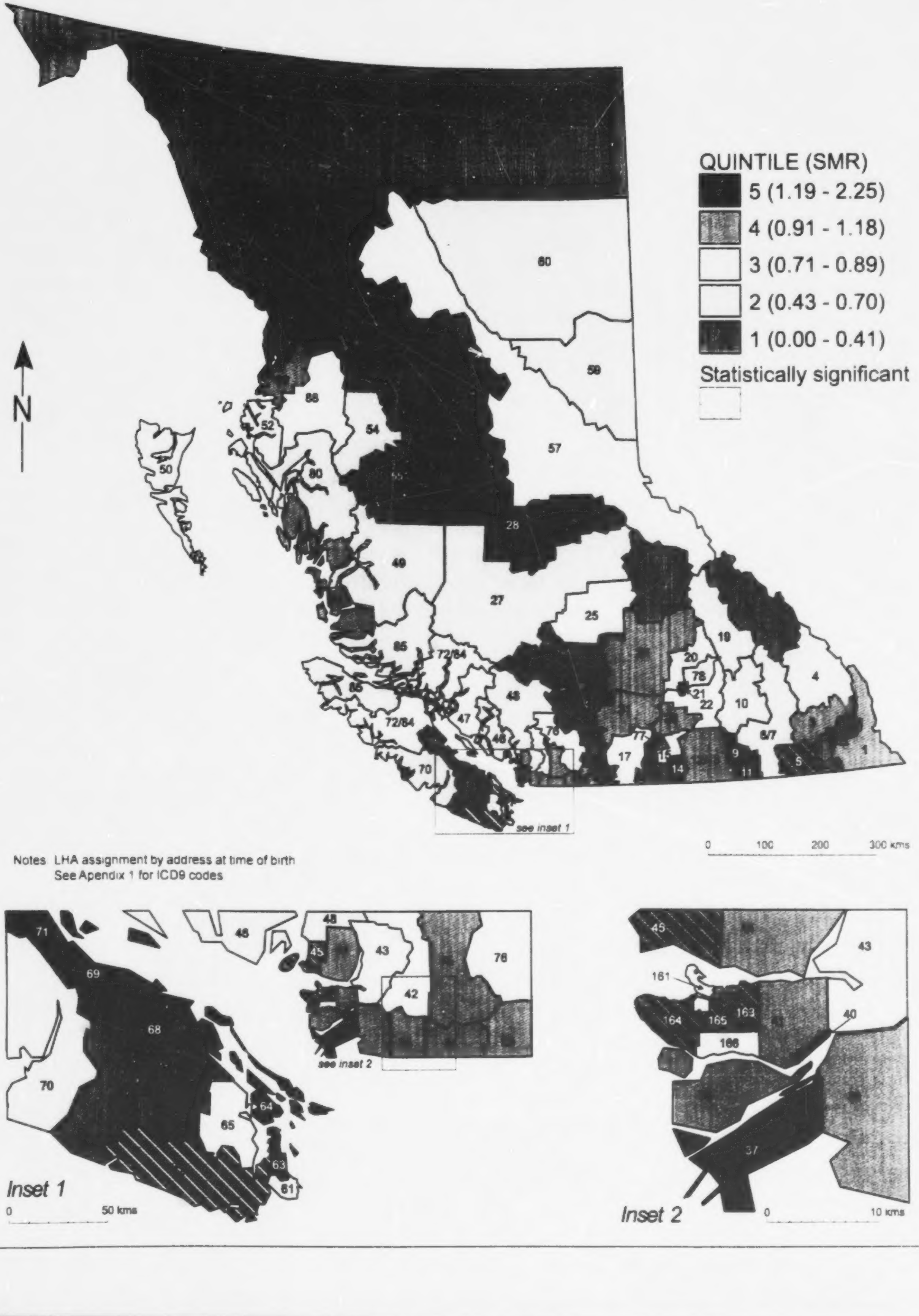
Chromosomal Anomalies by Local Health Area
British Columbia, 1989 - 1998

Local	Health Area	Total Births	Observed	Expected	Ratio	(p)	Rate
01	Fernie	1,713	5	4.7	1.08		2.92
02	Cranbrook	2,769	2	7.5	0.27	(-)	0.72
03	Kimberley	744	2	2.0	0.99		2.69
04	Windermere	858	1	2.3	0.43		1.17
05	Creston	1,310	8	3.6	2.25	+	6.11
06/07	Kootenay Lake/Nelson	2,822	5	7.7	0.65		1.77
09	Castlegar	1,359	5	3.7	1.36		3.68
10	Arrow Lakes	578	1	1.6	0.64		1.73
11	Trail	2,167	7	5.9	1.19		3.23
12/13	Grand Forks/Kettle Valley	1,121	3	3.0	0.99		2.68
14	Southern Okanagan	1,564	6	4.2	1.41		3.84
15	Penticton	3,851	6	10.5	0.57		1.56
16	Keremeos	463	-	1.3	-		-
17	Princeton	464	1	1.3	0.79		2.16
18	Golden	928	1	2.5	0.40		1.08
19	Revelstoke	1,060	2	2.9	0.70		1.89
20	Salmon Arm	2,699	4	7.3	0.55		1.48
21	Armstrong-Spallumcheen	914	-	2.5	-		-
22	Vernon	5,937	14	16.1	0.87		2.36
23	Central Okanagan	14,019	44	38.1	1.16		3.14
24	Kamloops	10,770	30	29.2	1.03		2.79
25	100 Mile House	1,484	3	4.0	0.74		2.02
26	North Thompson	616	-	1.7	-		-
27	Cariboo-Chilcotin	4,001	6	10.9	0.55		1.50
28	Quesnel	3,384	11	9.2	1.20		3.25
29	Lillooet	689	-	1.9	-		-
30	South Cariboo	955	-	2.6	-		-
31	Merritt	1,580	4	4.3	0.93		2.53
32	Hope	975	1	2.7	0.38		1.03
33	Chilliwack	8,738	23	23.7	0.97		2.63
34	Abbotsford	15,420	49	41.9	1.17		3.18
35	Langley	13,288	36	36.1	1.00		2.71
36	Surrey	48,138	133	130.7	1.02		2.76
37	Delta	11,832	43	32.1	1.34		3.63
38	Richmond	16,910	54	45.9	1.18		3.19
40	New Westminster	6,514	23	17.7	1.30		3.53
41	Burnaby	20,252	50	55.0	0.91		2.47
42	Maple Ridge	9,851	19	26.7	0.71		1.93
43	Coquitlam	22,880	47	62.1	0.76		2.05
44	North Vancouver	15,135	43	41.1	1.05		2.84
45	West Vancouver-Bowen Island	3,463	16	9.4	1.70	+	4.62
46	Sunshine Coast	2,615	5	7.1	0.70		1.91
47	Powell River	2,173	5	5.9	0.85		2.30
48	Howe Sound	3,723	5	10.1	0.49		1.34
49	Bella Coola Valley	544	1	1.5	0.68		1.84
50	Queen Charlotte	950	2	2.6	0.78		2.11
51	Snow Country	193	-	0.5	-		-
52	Prince Rupert	3,319	7	9.0	0.78		2.11
53	Upper Skeena	906	1	2.5	0.41		1.10
54	Smithers	2,997	4	8.1	0.49		1.33
55/93	Burns Lake/Eutsuk	1,200	4	3.3	1.23		3.33
56	Nechako	2,875	3	7.8	0.38		1.04
57	Prince George	14,325	33	38.9	0.85		2.30
59	Peace River South	4,374	8	11.9	0.67		1.83
60	Peace River North	4,721	7	12.8	0.55		1.48
61	Greater Victoria	20,789	50	56.4	0.89		2.41
62	Sooke	6,604	7	17.9	0.39	-	1.06
63	Saanich	4,765	17	12.9	1.31		3.57
64	Gulf Islands	1,018	6	2.8	2.17		5.89
65	Cowichan	5,674	12	15.4	0.78		2.11
66	Lake Cowichan	643	-	1.8	-		-
67	Ladysmith	1,823	2	5.0	0.40		1.10
68	Nanaimo	9,485	33	25.7	1.28		3.48
69	Qualicum	2,787	11	7.6	1.45		3.95
70	Alberni	4,135	5	11.2	0.45		1.21
71	Courtenay	5,788	20	15.7	1.27		3.46
72/84	Campbell River/Vancouver Isl W	5,358	12	14.5	0.83		2.24
75	Mission	4,778	12	13.0	0.93		2.51
76	Agassiz-Harrison	841	2	2.3	0.88		2.38
77	Summerland	907	1	2.5	0.41		1.10
78	Enderby	818	1	2.2	0.45		1.22
80	Kitimat	1,703	2	4.6	0.43		1.17
81	Fort Nelson	1,117	-	3.0	-		-
83	Central Coast	333	1	0.9	1.11		3.00
85	Vancouver Island North	2,401	4	6.5	0.61		1.67
87/94	Stikine/Telegraph Creek	285	-	0.8	-		-
88	Terrace	3,553	7	9.6	0.73		1.97
92	Nisga'a	375	1	1.0	0.98		2.67
161	Vancouver City Centre	5,191	11	14.1	0.78		2.12
162	Vancouver Downtown East Side	5,772	17	15.7	1.09		2.95
163	Vancouver North East	12,410	54	33.7	1.60	+	4.35
164	Vancouver West Side	10,251	40	27.8	1.44	+	3.90
165	Vancouver Midtown	11,767	49	31.9	1.53	+	4.16
166	Vancouver South	14,194	31	38.5	0.80		2.18
39	**Vancouver Total**	59,949	202	162.7	1.24	+	3.37
	B.C. Total	456,121	1,238	1,238.0	1.00		2.71

Notes: Rate per 1,000 Total births (Live births and Stillbirths). (p) indicates a statistically significant difference between the observed and expected (p<0.05, two tailed). + sig. High - sig. Low; significance based on less than five observations is indicated as (+) sig. High (-) sig. Low. LHA assignment by address at time of birth, unknown LHA are included in B.C. Tota

Figure 19

Chromosomal Anomalies by Local Health Area
British Columbia, 1989 - 1998


QUINTILE (SMR)
5 (1.19 - 2.25)
4 (0.91 - 1.18)
3 (0.71 - 0.89)
2 (0.43 - 0.70)
1 (0.00 - 0.41)
Statistically significant
N
60
59
57
88
54
52
50
80
55
28
49
27
25
19
4
85
72/84
20
78
21
22
10
48
47
46
76
77
17
15
14
9
11
6/7
5
1
70
see inset 1
0
100
200
300 kms
71
69
68
70
65
64
63
61
45
43
42
see inset 2
Inset 1
0
50 kms
161
164
165
163
166
40
37
Inset 2
0
10 kms

Notes LHA assignment by address at time of birth
See Apendix 1 for ICD9 codes

Section 4: Other Genetic Conditions by Health Region

Introduction

This section of the report provides information on the prevalence of "other genetic conditions" in the provincial population as of year-end, 1998. The majority of genetic abnormalities among infants and children are manifest by anomalous structural development. However, a smaller percent of newborn infants have hereditary malformations, neurological disorders, inborn errors of metabolism or biochemical abnormalities that manifest as functional disturbances with little or no initial physical abnormalities. This section of the report focuses on these conditions. Prevalence counts are presented for various genetic conditions by age group for the province as a whole, and for each health region. Because of the relatively small numbers of these "other genetic conditions" registered with the HSR, counts could not be provided by local health area. The address from the last contact with an HSR reporting source was used to assign the health region of residence; individuals who had died were excluded. If an individual had more than one diagnosed genetic condition within a category, they were only counted once for that category. However, individuals with genetic conditions in more than one category were counted in each category. The totals at the bottom of each table represent the total number of individuals with one or more of the genetic conditions.

The conditions, or groups of conditions, reported here include congenital syphilis, disorders of the endocrine glands, other metabolic disorders, blood disorders, hereditary and degenerative diseases of the nervous system, and hereditary disturbance in tooth structure. The disorders of the endocrine glands shown in the tables include acromegaly, gigantism, and dwarfism. All these conditions refer to pituitary gland dysfunction, most particularly to growth hormone production. Phenylketonuria (PKU), the various metabolism disorders, and cystic fibrosis represent many of the so-called inborn errors of metabolism which are now known to originate from gene mutations that alter the genetic constitution to the extent that normal function is disrupted. These biochemical disorders arise because of the disturbance (mutation) in a molecule of the gene itself. They do not stem from some mishap or alteration during embryonic development. The mode of transmission of these inborn errors usually is recessive, making them relatively rare in the general population.

Inborn errors of metabolism may have their clinical effects in almost any body system. Many of these dysfunctions result in neurologic abnormalities, mental retardation, seizures, spasticity, and vomiting or malabsorption leading to growth retardation. These metabolic disorders include a wide range of diseases. For example, Fanconi's syndrome, albinism, maple syrup urine disease, hyperammonemia, and PKU, to name a few, are all disorders or amino-acid transport and metabolism. Glycogen storage disease, glucose or lactose intolerance or malabsorption, and renal diabetes are examples of carbohydrate dysfunction. The mucoviscidosis of cystic fibrosis, porphyria, amyloidosis, disorder of bilirubin excretion of Gilbert's syndrome or the mucopolysaccharidosis of Hurler's and Hunter's syndromes are also metabolic disorders included within these broad groups.

Hemolytic anemias are also functional anomalies being fundamentally based on a shortened survival time of red blood cells. Red blood cell dysfunction may be caused by either generally hereditary intrinsic cell characteristics or due to noxious extraerythrocytic factors. The primary conditions included in this group are spherocytosis, elliptocytosis, anemias due to disorders of glutathione metabolism or enzyme deficiency, thalassemias, sickle cell, hemoglobinopathies, and Fanconi's anemia.

Huntington's chorea, other extrapyramidal diseases, anterior horn cell diseases excluding amyotrophic lateral sclerosis (ALS), muscular dystrophy, and other myopathies are all disorders of the peripheral motor and sensory systems. Unlike most of the other disorders in this group, Huntington's chorea is dominantly inherited. All of these conditions involve one or more of the structures (basal ganglia in the case of Huntington's) concerned with the segmental spinal reflex arc: the anterior horn cells, motor nerve fibers, muscle and sensory nerve fibers from muscle and tendons. Most common among the other extrapyramidal diseases are Shy-Drager syndrome, myoclonus, and tics of organic origin. Werdnig-Hoffmann disease or infantile spinal muscular atrophy is an anterior horn cell disease. In addition to hereditary muscular dystrophies, other myopathies might consist of such conditions as myotonia congenita, or hypokalemic familial paralysis. Interference with the reflex arc leads to depression of tendon reflexes which is characteristic of all these neuromuscular diseases. In addition, weakness and various degrees of muscle atrophy are present.

This section provides information on "other genetic conditions" in the provincial population as of year-end, 1998. The prevalence counts are presented for various conditions by age group, and are shown for the province as a whole, as well as for each health region based upon usual residence address. A complete list of the categories of genetic conditions and codes included in the tables in this section of the report can be found in Appendix 3. These genetic conditions range in severity from relatively insignificant to incompatible with life, most fall in between these extremes. Many of these conditions do not produce symptoms that are apparent at birth. Even in the case of PKU, for which neonatal screening test is routinely done, accuracy of the test depends on adequate ingestion of protein for 24 to 48 hours. Thus complete reporting of these conditions from sources other than Vital Statistics is essential. The tables in this section reflect the information reported to the HSR and should not be interpreted as complete provincial or regional statistics. Variability in level of reporting and small numbers also caution against making regional comparisons. Additional caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report.

Highlights

Table 40 provides counts of individuals with "other genetic conditions" living in the province at year-end, 1998. This prevalence information is presented by age group. Tables 41 through 60 provide similar information for each health region.

There were 3,775 individuals living in British Columbia that were registered with the HSR at year-end 1998 with one or more of the other genetic conditions listed in Appendix 3. The largest categories of genetic conditions were hereditary hemolytic and aplastic anemias (504 individuals registered), cystic fibrosis (434), hemophilia and other coagulation defects (433), and muscular dystrophy (292 individuals registered).

Among individuals living in B.C. with "other genetic conditions", hereditary hemolytic and aplastic anemias were the most frequently (504 cases) reported to the HSR. Both autosomal recessive and dominant types of hemolytic anemias are due to defects in proteins of the red cell membrane or in glycolytic red cell enzymes. The major clinical features of hemolytic anemias are anemia, bone marrow hypoplasia, splenomegaly, and jaundice. Thalassemias are due to a defect in the synthesis of one or more of the subunits of hemoglobins due to congenital gene deletions. Severity depends on the number of genes deleted and ranges from hydrops fetalis, which is incompatible with life, to that requiring blood/bone marrow replacement, to relatively insignificant clinical manifestations. Fanconi's anemia, the most common type of constitutional aplastic anemia, is autosomal recessive, usually manifests in childhood and is often associated with multiple congenital anomalies including short stature, renal malformations, hyperpigmentation of the skin and hypoplastic or absent thumbs. Progressive marrow failure from many of these diseases may require bone marrow transplant. Two thirds of the individuals with these conditions (67%) were under the age of 25 years old.

Cystic fibrosis (CF), an autosomal recessive disorder of exocrine glands, is characterized by chronic airway infection that ultimately leads to bronchiectasis, exocrine pancreatic insufficiency, abnormal sweat gland function, and urogenital dysfunction. The first signs and symptoms typically occur in childhood. In previous generations, few individuals with CF lived to adulthood. Due to improvements in therapy, about a quarter of CF children are now expected to reach adulthood and one in ten is expected to live past the age of 30. In B.C., among the genetic conditions noted, cystic fibrosis was the third most frequent in terms of numbers (434) and three quarters of the CF individuals (74%) were under the age of 30.

After hereditary hemolytic and aplastic anemias and cystic fibrosis, hemophilia and other coagulation defects were the "other genetic conditions" most frequently reported to the HSR (with 433 individuals). Almost all (95%) of the individuals with these conditions were less than 55 years old, and the majority (57%) were under 30.

Muscular dystrophy refers to both congenital benign and progressive types, primarily Duchenne and limb-girdle. Duchenne muscular dystrophy is an X-linked recessive trait caused by a mutation of the gene responsible for producing dystrophin. This muscular dystrophy occurs with an incidence of about 30 per 100,000 live born males. The disorder usually becomes apparent between ages three and five. By age 12, most are confined to a wheelchair as contractures and progressive scoliosis develop. By age 16 to 18, there is predisposition to serious pulmonary infections and aspiration. Life expectancy is reduced but many, especially those with a milder form (such as Becker's muscular dystrophy) survive into their fourth and fifth decade. Three quarters (77%) of the 292 individuals with muscular dystrophy registered and living in B.C. were under the age of 50.

Table 40
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

B.C. Total

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	1	2	1	3	-	1	-	-	-	-	-	1	-	-	-	3	12	0.3
Acromegaly/gigantism	-	2	3	-	2	3	1	2	2	-	-	2	-	-	-	2	19	0.5
Pituitary dwarfism	-	2	4	12	17	7	6	3	11	2	1	6	-	-	-	-	71	1.8
Hyper/hypo & other pituitary dysfunction	6	20	20	19	35	31	19	15	18	22	8	11	3	7	2	15	251	6.4
Phenylketonuria (PKU)	1	17	15	25	21	13	10	8	11	10	4	6	4	-	2	1	148	3.8
Other dis.of amino-acid trans./metab.	5	22	24	27	26	23	23	20	17	15	26	13	7	4	1	8	261	6.6
Disorders of carbohydrate trans./metab.	5	34	19	16	33	22	9	8	2	1	6	1	1	-	-	-	157	4.0
Disorders of plasma protein metabolism	8	15	2	4	2	-	1	-	-	-	-	-	-	-	-	2	34	0.9
Disordes of mineral metabolism	8	37	22	33	47	18	17	11	13	15	13	7	3	1	1	11	255	6.5
Cystic fibrosis	8	25	68	56	59	59	47	37	29	25	10	7	3	1	-	-	434	11.1
Other and unspecified disorders of metab.	6	37	35	26	30	20	20	11	19	14	17	5	8	5	7	6	266	6.8
Hereditary hemolytic & aplastic anemias	12	70	48	73	86	50	25	28	32	28	24	14	4	4	1	5	504	12.8
Hemophilia and other coagulation defects	5	38	49	45	38	24	46	38	41	38	24	26	8	7	1	5	433	11.0
Huntington's chorea	-	-	-	2	-	1	-	2	4	11	7	8	9	11	5	12	72	1.8
Other extrapyramidal diseases	4	14	11	12	17	9	5	4	17	16	9	10	10	11	7	20	176	4.5
Anterior hom cell diseases (excl. ALS)	-	1	3	4	7	8	7	7	7	8	2	2	-	3	-	-	59	1.5
Hereditary peripheral neuropathy	-	7	4	16	19	18	15	21	18	17	19	13	8	11	11	39	236	6.0
Muscular dystrophy	1	7	7	17	25	34	27	29	22	36	21	17	14	8	7	20	292	7.4
Other myopathies	2	11	6	5	13	20	13	16	14	19	19	7	9	2	2	12	170	4.3
Hereditary disturbance in tooth structure	2	20	3	11	16	8	4	3	6	1	-	-	1	-	-	-	75	1.9
Total Diagnoses	74	381	344	406	493	367	295	263	283	278	210	156	92	75	47	161	3,925	100.00
Total Cases	68	353	317	381	469	354	288	259	278	275	207	152	92	75	47	160	3,775	

Table 41
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

01 East Kootenay

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hyper/hypo & other pituitary dysfunction	-	-	1	-	3	-	-	2	-	-	-	-	1	1	-	-	8	12.5
Phenylketonuria (PKU)	-	1	-	1	1	1	1	-	-	-	-	-	-	-	-	-	5	7.8
Other dis.of amino-acid trans./metab.	-	1	-	2	-	-	2	-	-	-	-	-	-	-	-	-	5	7.8
Disorders of carbohydrate trans./metab.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	2	3.1
Cystic fibrosis	-	-	-	1	2	2	1	-	-	-	1	-	-	-	-	-	7	10.9
Other and unspecified disorders of metab.	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	2	3.1
Hereditary hemolytic & aplastic anemias	-	-	-	-	-	2	-	1	-	2	-	-	-	-	-	1	6	9.4
Hemophilia and other coagulation defects	-	-	2	3	1	1	1	-	2	1	-	1	-	-	-	-	12	18.8
Huntington's chorea	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	1	1.6
Other extrapyramidal diseases	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	2	3.1
Anterior hom cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hereditary peripheral neuropathy	-	-	-	1	1	1	1	-	-	1	1	1	-	1	-	1	9	14.1
Muscular dystrophy	-	1	-	-	-	-	-	-	2	-	-	-	-	-	-	-	3	4.7
Other myopathies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hereditary disturbance in tooth structure	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	2	3.1
Total Diagnoses	-	3	3	8	8	8	7	3	6	4	4	2	2	3	-	3	64	100.00
Total Cases	-	3	3	8	8	8	7	2	6	4	4	2	2	3	-	3	63	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only coutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 42

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

02 West Kootenay - Boundary

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	1.0
Pituitary dwarfism	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	1.0
Hyper/hypo & other pituitary dysfunction	-	1	-	2	1	1	-	1	-	1	1	-	-	-	-	-	8	8.1
Phenylketonuria (PKU)	-	1	2	1	-	-	-	1	1	-	-	1	-	-	-	-	7	7.1
Other dis.of amino-acid trans./metab.	-	1	-	2	3	-	-	-	-	1	1	-	-	1	-	-	9	9.1
Disorders of carbohydrate trans./metab.	-	-	-	2	-	1	-	-	-	1	-	-	-	-	-	-	4	4.0
Disorders of plasma protein metabolism	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1.0
Disordes of mineral metabolism	-	-	1	-	2	-	-	-	-	-	-	-	-	-	-	-	3	3.0
Cystic fibrosis	-	-	-	1	3	2	1	2	1	-	-	-	-	-	-	-	10	10.1
Other and unspecified disorders of metab.	-	-	-	-	1	-	-	1	2	1	-	-	-	-	-	-	5	5.1
Hereditary hemolytic & aplastic anemias	-	-	-	1	1	-	1	1	-	1	2	-	-	-	-	-	7	7.1
Hemophilia and other coagulation defects	-	1	1	2	1	2	1	2	3	3	1	-	-	-	-	-	17	17.2
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-	2	2.0
Other extrapyramidal diseases	-	-	-	-	-	-	-	-	1	-	1	-	1	-	1	-	4	4.0
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hereditary peripheral neuropathy	-	-	-	-	-	1	-	-	-	-	-	1	1	-	1	-	4	4.0
Muscular dystrophy	-	1	-	1	1	2	-	3	2	1	1	-	-	1	-	-	13	13.1
Other myopathies	-	1	-	-	1	-	-	-	-	-	-	-	1	-	-	-	3	3.0
Hereditary disturbance in tooth structure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Diagnoses	-	6	5	12	14	9	3	12	10	9	8	3	3	2	3	-	99	100.00
Total Cases	-	6	4	11	14	9	3	12	10	9	8	3	3	2	3	-	97	

Table 43

Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

03 North Okanagan

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hyper/hypo & other pituitary dysfunction	-	1	-	-	1	-	-	-	1	-	-	-	-	-	-	1	4	6.5
Phenylketonuria (PKU)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other dis.of amino-acid trans./metab.	-	-	-	2	-	-	1	-	1	1	1	-	-	-	-	1	7	11.3
Disorders of carbohydrate trans./metab.	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	2	3.2
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	1	5	8.1
Cystic fibrosis	-	1	3	2	1	1	1	-	-	1	-	-	-	-	-	-	10	16.1
Other and unspecified disorders of metab.	-	-	-	2	1	-	1	-	-	-	-	-	-	-	-	-	4	6.5
Hereditary hemolytic & aplastic anemias	-	-	1	-	-	1	-	-	1	-	-	-	-	1	-	-	4	6.5
Hemophilia and other coagulation defects	-	2	1	3	2	-	-	-	-	-	-	-	-	-	-	-	8	12.9
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other extrapyramidal diseases	-	1	-	1	1	1	-	-	-	-	-	-	-	-	-	-	4	6.5
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hereditary peripheral neuropathy	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1	3	4.8
Muscular dystrophy	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	3	4.8
Other myopathies	1	-	-	-	-	3	-	-	-	-	-	1	-	-	-	1	6	9.7
Hereditary disturbance in tooth structure	-	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	2	3.2
Total Diagnoses	1	5	6	13	11	8	3	1	3	2	1	1	-	1	1	5	62	100.00
Total Cases	1	4	6	13	11	7	3	1	3	2	1	1	-	1	1	5	60	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only coutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 44
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

04 South Okanagan Similkameen

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	2	1	1	-	-	-	-	-	-	-	-	-	4	2.3
Hyper/hypo & other pituitary dysfunction	-	2	-	2	2	-	1	1	1	2	-	-	-	1	-	1	13	7.6
Phenylketonuria (PKU)	-	-	-	2	1	1	-	-	-	2	-	1	-	-	-	-	7	4.1
Other dis. of amino-acid trans./metab.	-	-	-	-	1	1	2	-	2	-	-	1	-	-	1	2	10	5.8
Disorders of carbohydrate trans./metab.	-	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	2	1.2
Disorders of plasma protein metabolism	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.6
Disordes of mineral metabolism	-	-	-	1	2	-	-	1	2	2	-	-	-	-	1	-	9	5.3
Cystic fibrosis	2	2	7	7	1	5	2	2	1	1	-	1	-	-	-	-	31	18.1
Other and unspecified disorders of metab.	-	2	3	1	3	-	1	-	-	1	1	-	-	-	3	-	15	8.8
Hereditary hemolytic & aplastic anemias	-	1	4	3	-	2	-	-	1	3	-	-	-	-	-	-	14	8.2
Hemophilia and other coagulation defects	-	4	3	2	-	2	3	1	2	2	-	-	-	-	-	-	19	11.1
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other extrapyramidal diseases	-	1	-	-	1	-	-	-	1	1	-	-	-	-	-	2	6	3.5
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	2	1.2
Hereditary peripheral neuropathy	-	-	-	-	1	1	1	-	2	1	1	-	-	-	1	3	11	6.4
Muscular dystrophy	-	1	2	-	2	1	-	-	1	2	-	-	1	1	-	1	12	7.0
Other myopathies	-	-	-	-	-	2	2	1	2	-	2	-	-	-	-	2	11	6.4
Hereditary disturbance in tooth structure	-	-	-	-	2	2	-	-	-	-	-	-	-	-	-	-	4	2.3
Total Diagnoses	3	13	19	18	18	20	13	6	16	17	5	3	1	2	6	11	171	100.00
Total Cases	3	12	17	17	17	20	12	5	15	16	5	3	1	2	6	11	163	

Table 45
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

05 Thompson

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	1	-	-	-	-	-	-	-	-	-	1	-	-	-	-	2	1.1
Pituitary dwarfism	-	-	-	1	2	1	-	-	2	-	-	1	-	-	-	-	7	3.9
Hyper/hypo & other pituitary dysfunction	-	-	1	-	-	3	-	-	1	1	-	1	-	1	-	1	9	5.1
Phenylketonuria (PKU)	-	-	1	3	1	-	-	1	3	-	-	-	-	-	-	-	9	5.1
Other dis. of amino-acid trans./metab.	-	1	1	2	2	-	1	2	-	1	-	-	-	-	-	-	10	5.6
Disorders of carbohydrate trans./metab.	-	1	-	1	3	6	-	1	-	-	-	-	-	-	-	-	12	6.7
Disorders of plasma protein metabolism	1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	1.7
Disordes of mineral metabolism	-	3	1	1	-	1	-	1	-	-	1	1	-	-	-	1	10	5.6
Cystic fibrosis	-	1	-	3	5	5	3	4	2	1	2	1	1	-	-	-	28	15.7
Other and unspecified disorders of metab.	-	-	-	1	-	1	1	1	2	-	1	-	1	-	1	1	10	5.6
Hereditary hemolytic & aplastic anemias	-	-	1	-	1	2	1	3	-	-	-	-	-	-	-	1	9	5.1
Hemophilia and other coagulation defects	-	1	2	1	3	2	2	4	4	2	3	6	1	-	-	-	31	17.4
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.6
Other extrapyramidal diseases	-	-	1	-	-	2	-	-	-	-	-	1	-	-	-	-	4	2.2
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	1	-	1	-	-	-	-	-	-	2	1.1
Hereditary peripheral neuropathy	-	-	-	-	2	-	3	2	1	-	1	-	-	-	-	-	9	5.1
Muscular dystrophy	-	-	-	1	-	3	1	1	3	3	1	1	-	1	-	-	15	8.4
Other myopathies	-	-	-	-	1	1	-	-	-	-	1	-	-	-	-	-	3	1.7
Hereditary disturbance in tooth structure	-	-	1	1	-	1	1	-	-	-	-	-	-	-	-	-	4	2.2
Total Diagnoses	1	10	9	15	20	28	13	21	18	9	10	14	3	2	1	4	178	100.00
Total Cases	1	9	9	15	19	26	13	21	17	9	10	14	3	2	1	4	173	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only coutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 46
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

06 Fraser Valley

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.5
Acromegaly/gigantism	-	-	1	-	-	2	-	-	-	-	-	-	-	-	-	-	3	1.5
Pituitary dwarfism	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	1.0
Hyper/hypo & other pituitary dysfunction	-	-	-	1	3	1	2	1	1	1	-	-	-	-	-	1	11	5.6
Phenylketonuria (PKU)	-	1	2	2	-	-	-	-	1	1	-	-	1	-	-	-	8	4.1
Other dis of amino-acid trans./metab	1	3	-	2	1	1	1	2	-	-	1	1	-	-	-	-	13	6.6
Disorders of carbohydrate trans./metab	-	1	2	-	-	1	-	-	-	-	-	-	-	-	-	-	4	2.0
Disorders of plasma protein metabolism	1	1	1	1	1	-	-	-	-	-	-	-	-	-	-	-	5	2.6
Disordes of mineral metabolism	-	2	1	-	2	1	1	-	2	1	-	-	-	-	-	-	10	5.1
Cystic fibrosis	-	3	7	3	6	3	-	2	-	-	-	-	-	-	-	-	24	12.2
Other and unspecified disorders of metab	1	2	1	2	3	2	1	-	1	1	1	-	-	-	-	-	15	7.7
Hereditary hemolytic & aplastic anemias	1	3	2	3	4	-	1	1	1	1	-	-	-	-	-	1	18	9.2
Hemophilia and other coagulation defects	-	3	3	-	1	1	2	2	2	1	1	-	-	2	-	1	19	9.7
Huntington's chorea	-	-	-	1	-	-	-	-	-	1	-	1	1	-	-	-	4	2.0
Other extrapyramidal diseases	-	-	4	1	-	-	1	-	1	-	1	-	-	-	-	-	8	4.1
Anterior horn cell diseases (excl. ALS)	-	-	1	-	-	2	-	1	2	-	-	-	-	-	-	-	6	3.1
Hereditary peripheral neuropathy	-	-	1	-	1	2	-	1	1	1	-	-	-	1	2	4	14	7.1
Muscular dystrophy	-	1	1	3	3	1	5	1	2	1	2	1	1	-	1	1	24	12.2
Other myopathies	-	-	1	-	1	-	-	1	-	1	-	-	-	-	-	1	5	2.6
Hereditary disturbance in tooth structure	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1.0
Total Diagnoses	4	22	28	19	28	17	14	12	14	10	6	4	3	3	3	9	196	100.00
Total Cases	3	22	25	19	27	17	14	12	14	10	6	4	3	3	3	9	191	

Table 47
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

07 South Fraser Valley

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	1	-	-	-	1	-	-	-	-	-	-	-	-	-	-	2	0.4
Acromegaly/gigantism	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	0.2
Pituitary dwarfism	-	1	1	-	1	1	-	1	1	-	-	-	-	-	-	-	6	1.2
Hyper/hypo & other pituitary dysfunction	2	2	4	1	2	9	2	1	1	3	1	-	-	2	-	2	32	6.5
Phenylketonuria (PKU)	-	1	2	1	2	3	-	2	-	-	-	-	-	-	-	-	11	2.2
Other dis of amino-acid trans./metab	2	1	2	2	1	9	5	2	2	2	2	1	-	-	-	3	34	6.9
Disorders of carbohydrate trans./metab	-	8	1	2	10	3	-	-	2	-	1	-	-	-	-	-	27	5.4
Disorders of plasma protein metabolism	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	0.6
Disordes of mineral metabolism	3	7	4	4	7	1	2	1	1	2	1	1	1	1	-	-	36	7.3
Cystic fibrosis	2	5	14	8	7	10	7	4	3	5	2	3	1	-	-	-	71	14.3
Other and unspecified disorders of metab	1	8	6	4	3	1	5	4	3	1	1	-	3	-	-	-	40	8.1
Hereditary hemolytic & aplastic anemias	-	14	10	8	11	8	2	2	2	2	2	3	-	-	-	-	64	12.9
Hemophilia and other coagulation defects	2	2	6	7	4	6	8	6	2	3	-	-	1	1	1	1	50	10.1
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	1	1	-	1	1	4	0.8
Other extrapyramidal diseases	-	1	2	2	6	-	1	-	3	4	2	1	1	-	1	2	26	5.2
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	1	-	-	1	1	-	1	-	1	-	-	5	1.0
Hereditary peripheral neuropathy	-	-	1	2	1	3	1	4	1	4	2	-	1	1	1	-	22	4.4
Muscular dystrophy	-	2	1	2	4	2	1	5	1	2	3	5	1	-	1	1	31	6.3
Other myopathies	-	3	2	-	-	3	-	-	3	5	-	3	-	-	-	-	19	3.8
Hereditary disturbance in tooth structure	-	5	-	3	1	1	-	1	-	1	-	-	-	-	-	-	12	2.4
Total Diagnoses	12	64	56	46	61	62	34	33	26	35	17	19	10	6	5	10	496	100.00
Total Cases	9	60	52	46	58	60	33	33	26	35	16	19	10	6	5	10	478	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only coutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 48
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

08 Simon Fraser

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	1	0.3
Acromegaly/gigantism	-	-	-	-	-	1	-	-	2	-	-	-	-	-	-	1	4	1.3
Pituitary dwarfism	-	1	-	1	1	-	-	-	3	1	-	-	-	-	-	-	7	2.3
Hyper/hypo & other pituitary dysfunction	-	2	1	-	1	2	-	-	-	1	1	1	1	2	-	1	13	4.2
Phenylketonuria (PKU)	1	4	-	2	2	4	5	1	-	-	-	-	-	-	-	-	19	6.2
Other dis of amino-acid trans /metab	1	3	1	3	5	3	2	1	-	1	4	1	2	-	-	-	27	8.8
Disorders of carbohydrate trans /metab	-	5	3	-	3	3	1	1	-	-	1	-	-	-	-	-	17	5.5
Disorders of plasma protein metabolism	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	0.7
Disordes of mineral metabolism	3	3	4	5	3	-	1	-	1	-	3	1	-	-	-	1	25	8.1
Cystic fibrosis	-	2	6	5	3	2	5	2	1	-	1	-	-	-	-	-	27	8.8
Other and unspecified disorders of metab	1	3	2	-	2	-	2	1	1	3	1	-	-	1	1	-	18	5.9
Hereditary hemolytic & aplastic anemias	2	8	3	3	4	3	3	-	1	2	-	-	-	-	-	-	29	9.4
Hemophilia and other coagulation defects	1	3	5	3	1	-	4	4	5	4	4	2	-	-	-	-	36	11.7
Huntington's chorea	-	-	-	-	-	-	-	-	-	3	-	-	1	2	-	-	6	2.0
Other extrapyramidal diseases	1	1	1	2	2	-	-	2	-	-	2	1	3	1	1	1	18	5.9
Anterior horn cell diseases (excl ALS)	-	-	-	-	2	-	1	1	-	-	-	-	-	-	-	-	4	1.3
Hereditary peripheral neuropathy	-	1	1	1	1	2	-	1	1	2	3	3	-	-	-	1	17	5.5
Muscular dystrophy	-	-	-	-	3	3	4	1	1	2	2	2	2	2	-	3	25	8.1
Other myopathies	-	-	-	-	2	1	2	-	-	1	1	-	-	-	-	1	8	2.6
Hereditary disturbance in tooth structure	-	2	-	1	1	-	-	-	-	-	-	-	-	-	-	-	4	1.3
Total Diagnoses	11	38	27	28	36	24	30	15	16	20	23	11	9	8	2	9	307	100.00
Total Cases	10	37	24	24	34	24	30	15	16	20	23	11	9	8	2	8	295	

Table 49
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

09 Coast Garibaldi

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	1	1.4
Hyper/hypo & other pituitary dysfunction	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	3	4.1
Phenylketonuria (PKU)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other dis of amino-acid trans /metab	-	1	-	-	1	-	-	1	-	-	-	-	1	-	-	-	4	5.4
Disorders of carbohydrate trans /metab	-	1	1	-	1	-	2	1	-	-	-	-	-	-	-	-	6	8.1
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	-	-	-	1	1	-	-	1	-	-	-	-	-	-	-	-	3	4.1
Cystic fibrosis	-	-	-	2	-	-	-	2	1	-	1	-	-	-	-	-	6	8.1
Other and unspecified disorders of metab	-	2	-	-	-	1	-	1	1	1	-	-	1	-	-	-	7	9.5
Hereditary hemolytic & aplastic anemias	-	-	-	2	1	-	1	2	4	-	1	-	-	-	-	-	11	14.9
Hemophilia and other coagulation defects	-	-	-	-	3	1	1	-	-	-	2	1	1	-	-	-	9	12.2
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	1	-	-	1	-	-	2	2.7
Other extrapyramidal diseases	-	-	-	-	-	-	-	-	2	-	-	-	1	-	-	-	3	4.1
Anterior horn cell diseases (excl ALS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hereditary peripheral neuropathy	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	2	2.7
Muscular dystrophy	-	-	-	-	1	2	3	1	-	-	-	-	1	-	-	-	8	10.8
Other myopathies	-	1	-	-	-	-	-	3	-	2	1	-	-	-	-	-	7	9.5
Hereditary disturbance in tooth structure	-	-	-	-	1	-	-	1	-	-	-	-	-	-	-	-	2	2.7
Total Diagnoses	-	5	2	6	10	6	7	13	8	3	6	1	5	1	-	1	74	100.00
Total Cases	-	5	2	6	10	6	7	12	8	3	6	1	5	1	-	1	73	

Note Refer to Appendix 3 for ICD-9 codes used in each category
An individual with more than one diagnosed condition within a category is only coutned once for that category
However, if an individual is diagnosed with a condition in more than one category they are counted in each category

Table 50

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 1998

10 Central Vancouver Island

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	1	1	-	-	-	1	-	-	-	-	3	1.3
Pituitary dwarfism	-	-	1	-	-	-	-	-	-	-	-	2	-	-	-	-	3	1.3
Hyper/hypo & other pituitary dysfunction	1	5	1	-	2	2	1	2	2	1	2	2	-	-	-	1	22	9.5
Phenylketonuna (PKU)	-	2	1	2	2	2	1	-	3	2	-	-	-	-	-	-	15	6.5
Other dis.of amino-acid trans./metab.	-	1	-	1	1	1	2	1	-	1	2	-	-	-	-	1	11	4.8
Disorders of carbohydrate trans./metab.	-	1	1	2	3	2	2	2	-	-	-	-	1	-	-	-	14	6.1
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	-	3	1	1	2	1	1	1	-	2	1	-	-	-	-	1	14	6.1
Cystic fibrosis	-	1	4	1	1	2	3	-	5	2	-	-	-	-	-	-	19	8.2
Other and unspecified disorders of metab	1	2	5	2	4	4	-	-	-	-	5	1	-	1	-	-	25	10.8
Hereditary hemolytic & aplastic anemias	-	2	2	1	4	2	-	1	-	-	1	-	-	-	-	-	13	5.6
Hemophilia and other coagulation defects	-	2	4	2	4	4	2	-	2	1	4	1	-	1	-	1	28	12.1
Huntington's chorea	-	-	-	-	-	-	-	-	-	2	1	-	2	1	1	-	7	3.0
Other extrapyramidal diseases	-	1	-	-	1	-	-	-	-	1	-	2	-	-	-	1	6	2.6
Anterior horn cell diseases (excl. ALS)	-	-	-	2	1	-	1	1	2	1	-	-	-	-	-	-	8	3.5
Hereditary peripheral neuropathy	-	-	-	1	-	1	1	-	4	-	-	2	-	1	-	3	13	5.6
Muscular dystrophy	-	-	-	-	2	4	-	2	2	-	-	1	2	-	-	1	14	6.1
Other myopathies	-	2	-	-	1	2	1	-	2	1	3	-	1	-	-	-	13	5.6
Hereditary disturbance in tooth structure	-	1	-	1	1	-	-	-	-	-	-	-	-	-	-	-	3	1.3
Total Diagnoses	2	23	20	16	29	27	16	11	22	14	19	12	6	4	1	9	231	100.00
Total Cases	2	20	18	14	29	26	16	11	22	13	18	10	6	4	1	9	219	

Table 51

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 1998

11 Upper Island/Central Coast

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.7
Acromegaly/gigantism	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	0.7
Pituitary dwarfism	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	-	2	1.5
Hyper/hypo & other pituitary dysfunction	-	-	1	-	5	-	2	-	1	-	-	-	-	-	-	-	9	6.7
Phenylketonuna (PKU)	-	1	2	3	2	-	-	-	-	-	-	-	-	-	-	-	8	6.0
Other dis of amino-acid trans./metab.	-	1	4	1	-	-	-	2	2	-	-	-	-	-	-	-	10	7.5
Disorders of carbohydrate trans./metab	-	4	-	1	2	2	-	-	-	-	-	-	-	-	-	-	9	6.7
Disorders of plasma protein metabolism	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1.5
Disordes of mineral metabolism	-	3	-	2	2	2	1	-	-	2	-	-	-	-	-	-	12	9.0
Cystic fibrosis	-	-	4	4	1	1	2	-	2	-	-	-	-	-	-	-	14	10.4
Other and unspecified disorders of metab	-	2	3	-	4	2	-	-	3	-	1	-	-	-	-	-	15	11.2
Hereditary hemolytic & aplastic anemias	-	1	2	4	-	-	3	1	-	-	-	-	-	-	1	-	12	9.0
Hemophilia and other coagulation defects	-	3	1	2	2	-	-	-	1	1	-	1	-	-	-	-	11	8.2
Huntington's chorea	-	-	-	1	-	-	-	-	-	3	-	-	-	-	-	-	4	3.0
Other extrapyramidal diseases	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.7
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hereditary peripheral neuropathy	-	-	-	-	1	-	-	-	-	1	1	-	-	-	-	-	3	2.2
Muscular dystrophy	-	-	-	2	-	1	2	1	-	2	1	-	-	-	-	-	9	6.7
Other myopathies	-	-	1	1	-	2	-	1	1	-	-	-	1	-	-	-	7	5.2
Hereditary disturbance in tooth structure	-	1	1	1	-	-	1	-	-	-	-	-	-	-	-	-	4	3.0
Total Diagnoses	-	18	22	23	20	10	11	5	10	9	3	1	1	-	1	-	134	100.00
Total Cases	-	17	21	21	18	10	10	5	9	9	3	1	1	-	1	-	126	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only coutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 52

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 1998

12 Cariboo

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.2
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	1	-	1	1	-	-	-	-	-	-	-	-	-	3	3.7
Hyper/hypo & other pituitary dysfunction	-	-	-	-	1	4	-	-	-	-	-	-	-	-	1	1	7	8.5
Phenylketonuria (PKU)	-	-	-	-	2	-	-	1	-	-	-	-	-	-	-	-	3	3.7
Other dis.of amino-acid trans./metab.	-	-	-	-	2	1	-	-	-	-	-	-	-	-	-	-	3	3.7
Disorders of carbohydrate trans./metab.	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	-	1	-	-	2	1	2	-	-	1	1	-	-	-	-	1	9	11.0
Cystic fibrosis	-	-	-	-	4	1	-	1	2	-	-	-	-	-	-	-	8	9.8
Other and unspecified disorders of metab.	-	-	-	2	-	-	2	-	-	-	-	-	-	-	-	-	4	4.9
Hereditary hemolytic & aplastic anemias	-	-	-	2	5	1	-	1	1	-	-	-	-	-	-	-	10	12.2
Hemophilia and other coagulation defects	-	2	-	-	-	2	-	-	-	2	-	-	-	-	-	-	6	7.3
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1.2
Other extrapyramidal diseases	-	2	-	1	-	-	-	-	1	2	-	-	-	-	-	1	7	8.5
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1.2
Hereditary peripheral neuropathy	-	-	-	-	-	1	1	1	-	-	-	1	-	-	-	-	4	4.9
Muscular dystrophy	-	-	-	-	-	1	1	1	1	1	-	-	-	-	-	1	6	7.3
Other myopathies	-	-	-	1	-	1	-	-	-	-	2	-	-	-	-	-	4	4.9
Hereditary disturbance in tooth structure	-	-	-	-	3	1	1	-	-	-	-	-	-	-	-	-	5	6.1
Total Diagnoses	-	5	-	7	19	15	8	5	5	7	3	1	-	-	1	6	82	100.00
Total Cases	-	5	-	6	19	14	8	5	5	7	3	1	-	-	1	6	80	

Table 53

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 1998

13 North West

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	1	1	1	-	-	-	-	-	-	-	-	-	-	3	2.7
Hyper/hypo & other pituitary dysfunction	-	2	1	1	-	-	-	-	-	1	-	-	-	-	-	-	5	4.4
Phenylketonuria (PKU)	-	1	-	1	-	-	-	-	-	-	-	-	-	-	-	-	2	1.8
Other dis of amino-acid trans./metab	1	-	3	1	1	1	-	1	1	-	-	1	-	-	-	-	10	8.8
Disorders of carbohydrate trans./metab	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	2	1.8
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	-	-	-	-	5	-	-	-	-	-	-	1	-	-	-	-	6	5.3
Cystic fibrosis	1	3	5	1	2	2	3	2	-	-	-	-	-	-	-	-	19	16.8
Other and unspecified disorders of metab.	-	-	1	-	1	1	1	1	-	2	-	-	-	-	-	-	7	6.2
Hereditary hemolytic & aplastic anemias	1	2	3	1	1	7	1	-	-	-	-	-	-	-	-	-	16	14.2
Hemophilia and other coagulation defects	1	3	-	1	2	-	-	5	3	1	1	-	-	-	-	-	17	15.0
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other extrapyramidal diseases	1	-	-	-	-	1	-	1	-	1	-	-	-	1	-	-	5	4.4
Anterior horn cell diseases (excl. ALS)	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	0.9
Hereditary peripheral neuropathy	-	-	-	-	2	-	-	-	1	-	-	-	-	-	-	-	3	2.7
Muscular dystrophy	-	-	1	-	3	-	1	-	1	1	-	-	-	-	-	-	7	6.2
Other myopathies	-	2	-	-	2	-	-	1	1	-	-	-	-	-	-	-	6	5.3
Hereditary disturbance in tooth structure	-	2	-	-	2	-	-	-	-	-	-	-	-	-	-	-	4	3.5
Total Diagnoses	5	15	14	7	25	13	6	11	7	6	1	2	-	1	-	-	113	100.00
Total Cases	5	15	14	6	23	13	6	11	7	6	1	2	-	1	-	-	110	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only coutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 54

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 1998

14 Peace Liard

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	1	-	-	-	1	-	-	-	-	-	-	-	2	2.6
Hyper/hypo & other pituitary dysfunction	-	-	-	1	1	1	-	1	-	1	1	1	-	-	-	-	7	9.0
Phenylketonuria (PKU)	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	1.3
Other dis.of amino-acid trans./metab.	-	-	-	2	1	-	-	-	1	1	-	-	-	-	-	-	5	6.4
Disorders of carbohydrate trans./metab.	-	-	2	-	-	-	1	1	-	-	-	-	-	-	-	-	4	5.1
Disorders of plasma protein metabolism	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	1.3
Disordes of mineral metabolism	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	1	3	3.8
Cystic fibrosis	-	1	-	1	2	2	4	2	-	-	-	1	-	-	-	-	13	16.7
Other and unspecified disorders of metab.	-	2	-	-	-	1	-	-	1	1	-	-	-	-	-	-	5	6.4
Hereditary hemolytic & aplastic anemias	1	-	-	-	1	1	2	-	4	2	1	-	-	1	-	-	13	16.7
Hemophilia and other coagulation defects	-	-	-	1	2	-	2	-	1	-	1	-	1	-	-	-	8	10.3
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Other extrapyramidal diseases	-	-	-	1	-	-	-	-	1	-	-	-	-	-	-	-	2	2.6
Anterior horn cell diseases (excl. ALS)	-	-	-	-	2	2	1	-	-	-	-	1	-	-	-	-	6	7.7
Hereditary peripheral neuropathy	-	-	-	-	1	-	-	-	-	1	-	-	-	-	-	1	3	3.8
Muscular dystrophy	-	-	-	-	-	1	-	-	-	1	1	-	-	-	-	-	3	3.8
Other myopathies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Hereditary disturbance in tooth structure	-	-	-	1	1	-	-	-	-	-	-	-	-	-	-	-	2	2.6
Total Diagnoses	1	3	2	7	14	8	11	4	9	8	4	3	1	1	-	2	78	100.00
Total Cases	1	2	2	7	12	7	10	4	9	8	4	3	1	1	-	2	73	

Table 55

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 1998

15 Northern Interior

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	0.9
Hyper/hypo & other pituitary dysfunction	1	2	1	1	1	1	-	1	1	1	-	-	-	-	-	-	10	8.7
Phenylketonuria (PKU)	-	1	1	-	-	1	-	1	-	-	-	-	-	-	-	-	4	3.5
Other dis.of amino-acid trans./metab.	-	-	2	-	1	1	-	1	-	-	1	1	-	-	-	-	7	6.1
Disorders of carbohydrate trans./metab.	1	3	2	1	1	-	-	-	-	-	-	-	-	-	-	-	8	7.0
Disorders of plasma protein metabolism	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.9
Disordes of mineral metabolism	-	2	-	4	2	1	2	-	-	-	1	-	-	-	-	-	12	10.4
Cystic fibrosis	-	-	3	2	6	3	-	2	-	-	-	-	-	-	-	-	16	13.9
Other and unspecified disorders of metab.	-	2	1	1	-	-	-	-	-	-	1	-	-	-	-	1	6	5.2
Hereditary hemolytic & aplastic anemias	-	1	1	-	2	-	1	1	1	-	-	1	-	-	-	-	8	7.0
Hemophilia and other coagulation defects	-	2	2	1	-	1	-	2	1	-	1	-	-	1	-	-	11	9.6
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	1	0.9
Other extrapyramidal diseases	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	-	2	1.7
Anterior horn cell diseases (excl. ALS)	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1	0.9
Hereditary peripheral neuropathy	-	-	-	1	-	1	-	-	-	-	1	1	-	-	-	1	5	4.3
Muscular dystrophy	-	-	-	4	1	1	1	1	2	1	-	-	-	-	-	-	11	9.6
Other myopathies	-	-	1	-	-	1	2	-	-	1	-	-	-	-	-	-	5	4.3
Hereditary disturbance in tooth structure	2	2	-	-	1	-	-	1	-	-	-	-	-	-	-	-	6	5.2
Total Diagnoses	4	16	14	16	16	11	7	10	5	4	5	4	-	1	-	2	115	100.00
Total Cases	4	15	13	16	16	11	7	9	5	4	5	4	-	1	-	2	112	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only coutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 56
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

16 Vancouver

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	1	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	3	0.4
Acromegaly/gigantism	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	1	3	0.4
Pituitary dwarfism	-	-	-	4	2	1	1	-	1	-	-	-	-	-	-	-	9	1.3
Hyper/hypo & other pituitary dysfunction	2	2	2	2	4	4	3	4	-	3	1	3	-	-	1	2	33	4.7
Phenylketonuria (PKU)	-	2	4	2	3	-	2	-	2	-	2	1	2	-	-	-	20	2.9
Other dis.of amino-acid trans./metab.	-	3	3	1	2	3	2	2	2	1	8	4	-	1	-	1	33	4.7
Disorders of carbohydrate trans./metab.	1	6	4	2	5	-	-	1	-	-	2	-	-	-	-	-	21	3.0
Disorders of plasma protein metabolism	3	5	-	2	1	-	-	-	-	-	-	-	-	-	-	1	12	1.7
Disordes of mineral metabolism	-	6	4	8	6	3	1	1	1	-	3	1	1	-	-	2	37	5.3
Cystic fibrosis	1	1	6	5	9	7	1	8	5	3	1	-	1	-	-	-	48	6.9
Other and unspecified disorders of metab.	1	7	6	2	4	4	3	-	3	2	3	3	1	1	1	2	43	6.2
Hereditary hemolytic & aplastic anemias	4	26	8	21	29	8	5	6	11	9	5	8	2	-	-	2	144	20.6
Hemophilia and other coagulation defects	1	4	11	9	6	1	7	6	9	10	3	11	2	2	-	1	83	11.9
Huntington's chorea	-	-	-	-	-	-	-	-	1	1	1	2	2	2	1	5	15	2.1
Other extrapyramidal diseases	2	4	1	2	2	3	3	1	3	4	1	2	4	3	2	6	43	6.2
Anterior horn cell diseases (excl. ALS)	-	1	1	2	-	2	1	1	1	3	1	-	-	-	-	-	13	1.9
Hereditary peripheral neuropathy	-	-	-	3	1	5	2	4	3	2	6	2	4	6	3	15	56	8.0
Muscular dystrophy	-	-	-	1	2	2	4	5	1	7	5	2	3	2	1	6	41	5.9
Other myopathies	-	-	1	-	1	2	1	5	3	3	5	2	1	1	1	3	29	4.2
Hereditary disturbance in tooth structure	-	1	1	3	1	1	-	-	4	-	-	-	1	-	-	-	12	1.7
Total Diagnoses	16	68	54	71	78	46	36	44	50	48	47	41	24	18	10	47	698	100.00
Total Cases	15	59	48	65	72	44	34	44	49	48	47	39	24	18	10	47	663	

Table 57
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

17 Burnaby

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.5
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	1	-	-	-	-	2	-	-	-	-	-	-	-	3	1.5
Hyper/hypo & other pituitary dysfunction	-	-	2	-	-	1	5	-	3	1	1	-	-	-	-	2	15	7.4
Phenylketonuria (PKU)	-	-	-	1	-	1	-	-	1	1	1	1	-	-	-	1	7	3.4
Other dis.of amino-acid trans./metab.	-	3	1	1	-	1	-	2	1	1	2	1	1	-	-	-	14	6.9
Disorders of carbohydrate trans./metab.	1	1	-	-	1	-	1	-	-	-	-	-	-	-	-	-	4	2.0
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	1	1	1	2	1	2	-	-	-	1	-	1	-	-	-	-	10	4.9
Cystic fibrosis	-	-	1	2	1	3	1	3	-	4	1	1	-	-	-	-	17	8.3
Other and unspecified disorders of metab.	-	3	2	3	1	1	-	-	-	-	-	-	-	1	1	1	13	6.4
Hereditary hemolytic & aplastic anemias	3	6	5	4	5	4	1	1	1	2	7	1	1	1	-	-	42	20.6
Hemophilia and other coagulation defects	-	2	2	3	1	-	1	3	-	2	1	1	-	-	-	-	16	7.8
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	3	6	2.9
Other extrapyramidal diseases	-	-	-	-	1	-	-	-	3	1	-	-	-	1	-	2	8	3.9
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	-	-	1	1	-	-	1	-	-	3	1.5
Hereditary peripheral neuropathy	-	2	-	1	3	-	1	-	1	-	-	1	-	-	1	1	11	5.4
Muscular dystrophy	-	1	-	1	-	2	-	3	-	3	2	2	1	-	-	1	16	7.8
Other myopathies	-	1	-	-	-	1	1	3	-	3	1	-	-	-	1	2	13	6.4
Hereditary disturbance in tooth structure	-	3	-	-	1	-	-	-	1	-	-	-	-	-	-	-	5	2.5
Total Diagnoses	5	24	14	19	15	16	11	15	13	20	17	9	3	7	3	13	204	100.00
Total Cases	5	22	13	19	15	14	11	14	13	20	16	9	3	7	3	13	197	

Note: Refer to Appendix 3 for ICD-9 codes used in each category
An individual with more than one diagnosed condition within a category is only coutned once for that category
However, if an individual is diagnosed with a condition in more than one category they are counted in each category

Table 58
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

18 North Shore

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.6
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	-	-	4	-	-	2	1	1	-	-	-	-	-	-	8	4.8
Hyper/hypo & other pituitary dysfunction	-	-	1	1	1	-	-	-	2	-	-	1	1	-	-	1	8	4.8
Phenylketonuria (PKU)	-	-	-	1	3	-	1	-	-	-	-	-	-	-	-	-	5	3.0
Other dis of amino-acid trans./metab	-	1	3	2	1	-	1	3	2	3	2	1	-	1	-	-	20	12.1
Disorders of carbohydrate trans./metab	-	1	1	2	2	1	1	-	-	-	-	-	-	-	-	-	8	4.8
Disorders of plasma protein metabolism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Disordes of mineral metabolism	-	-	2	2	-	1	-	2	-	-	-	-	-	-	-	1	8	4.8
Cystic fibrosis	2	2	3	1	1	5	3	1	2	1	-	-	-	-	-	-	21	12.7
Other and unspecified disorders of metab	1	1	2	1	-	-	-	-	-	-	-	-	-	-	-	-	5	3.0
Hereditary hemolytic & aplastic anemias	-	2	2	5	6	2	1	3	-	-	2	-	1	1	-	-	25	15.2
Hemophilia and other coagulation defects	-	1	2	1	-	-	1	1	1	1	1	2	-	-	-	-	11	6.7
Huntington's chorea	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	2	4	2.4
Other extrapyramidal diseases	-	1	1	-	-	1	-	-	-	-	1	-	-	-	-	-	4	2.4
Anterior horn cell diseases (excl. ALS)	-	-	1	-	-	-	2	-	-	-	-	-	-	-	-	-	3	1.8
Hereditary peripheral neuropathy	-	-	1	1	-	-	-	-	1	2	-	-	-	-	1	1	7	4.2
Muscular dystrophy	-	-	-	-	1	3	1	1	-	5	1	-	-	-	3	2	17	10.3
Other myopathies	-	-	-	2	2	-	-	1	-	1	1	1	1	-	-	-	9	5.5
Hereditary disturbance in tooth structure	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	1	0.6
Total Diagnoses	3	9	19	19	21	13	12	14	9	14	9	5	3	2	5	8	165	100.00
Total Cases	3	9	17	18	20	13	12	14	9	13	9	5	3	2	5	8	160	

Table 59
Counts of Individuals Living with "Other" Genetic Conditions by Age Group
British Columbia, As of Year-End 1998

19 Richmond

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Acromegaly/gigantism	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.7
Pituitary dwarfism	-	-	-	-	1	-	1	-	-	-	-	-	-	-	-	-	2	1.4
Hyper/hypo & other pituitary dysfunction	-	-	2	2	2	-	2	1	1	-	-	1	-	-	-	-	11	8.0
Phenylketonuria (PKU)	-	1	-	-	-	-	-	-	-	2	-	-	-	-	-	-	3	2.2
Other dis of amino-acid trans./metab	-	-	2	-	2	1	3	-	-	-	1	-	-	-	-	-	9	6.5
Disorders of carbohydrate trans./metab	-	-	2	-	-	1	-	1	-	-	1	-	-	-	-	-	5	3.6
Disorders of plasma protein metabolism	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.7
Disordes of mineral metabolism	1	2	2	1	1	-	-	1	-	-	-	-	-	-	-	1	9	6.5
Cystic fibrosis	-	2	-	1	1	1	1	-	1	-	-	-	-	1	-	-	8	5.8
Other and unspecified disorders of metab	-	-	1	1	2	-	-	1	-	-	-	1	-	-	-	1	7	5.1
Hereditary hemolytic & aplastic anemias	-	2	4	11	9	3	2	2	1	1	-	1	-	-	-	-	36	26.1
Hemophilia and other coagulation defects	-	-	-	2	-	-	1	-	1	2	1	-	-	-	-	-	7	5.1
Huntington's chorea	-	-	-	-	-	1	-	-	-	-	1	1	-	-	-	-	3	2.2
Other extrapyramidal diseases	-	1	-	-	3	-	-	-	-	-	-	2	-	2	1	-	9	6.5
Anterior horn cell diseases (excl. ALS)	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	1	0.7
Hereditary peripheral neuropathy	-	-	-	-	1	-	-	4	-	-	1	1	-	-	-	3	10	7.2
Muscular dystrophy	-	-	1	1	-	-	-	2	3	-	-	2	-	-	-	2	11	8.0
Other myopathies	-	-	-	1	-	-	1	-	-	1	-	-	-	-	-	1	4	2.9
Hereditary disturbance in tooth structure	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	0.7
Total Diagnoses	1	11	14	20	22	7	11	13	7	6	5	9	-	3	1	8	138	100.00
Total Cases	1	11	13	19	21	6	11	13	7	6	5	9	-	3	1	8	134	

Note: Refer to Appendix 3 for ICD-9 codes used in each category.
An individual with more than one diagnosed condition within a category is only ccutned once for that category.
However, if an individual is diagnosed with a condition in more than one category they are counted in each category.

Table 60

Counts of Individuals Living with "Other" Genetic Conditions by Age Group British Columbia, As of Year-End 1998

20 Capital

Conditions	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70+	Total	% Total
Congenital syphilis	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	0.3
Acromegaly/gigantism	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Pituitary dwarfism	-	-	1	2	-	-	1	-	-	-	1	2	-	-	-	-	7	2.2
Hyper/hypo & other pituitary dysfunction	-	1	1	5	4	1	1	-	3	5	-	1	-	-	-	1	23	7.2
Phenylketonuria (PKU)	-	1	-	3	2	-	-	1	-	1	1	2	1	-	2	-	14	4.4
Other dis.of amino-acid trans./metab.	-	2	2	3	1	-	1	-	3	2	1	1	3	1	-	-	20	6.3
Disorders of carbohydrate trans./metab.	2	2	-	1	-	1	1	-	-	-	-	1	-	-	-	-	8	2.5
Disorders of plasma protein metabolism	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	0.6
Disordes of mineral metabolism	-	4	1	-	4	2	6	2	6	4	-	1	1	-	-	1	32	10.0
Cystic fibrosis	-	1	5	6	3	2	9	-	3	7	1	-	-	-	-	-	37	11.6
Other and unspecified disorders of metab.	-	1	2	4	1	2	2	1	2	1	2	-	1	1	-	-	20	6.3
Hereditary hemolytic & aplastic anemias	-	2	-	4	2	4	-	2	3	3	3	-	-	-	-	-	23	7.2
Hemophilia and other coagulation defects	-	3	4	2	5	1	10	2	2	2	-	-	2	-	-	1	34	10.6
Huntington's chorea	-	-	-	-	-	-	-	2	2	1	1	1	2	2	-	-	11	3.4
Other extrapyramidal diseases	-	1	-	1	-	1	-	-	1	1	1	1	-	2	1	4	14	4.4
Anterior hom cell diseases (excl. ALS)	-	-	-	-	-	-	1	1	-	-	-	-	-	1	-	-	3	0.9
Hereditary penpheral neuropathy	-	4	-	4	3	-	4	3	2	2	2	-	2	1	-	3	30	9.4
Muscular dystrophy	1	-	-	1	1	4	3	1	-	4	2	1	2	1	1	1	23	7.2
Other myopathies	1	1	-	-	2	1	3	-	2	-	2	-	4	1	-	1	18	5.6
Hereditary disturbance in tooth structure	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total Diagnoses	5	23	16	36	28	19	42	15	29	33	17	11	18	10	4	14	320	100.00
Total Cases	5	20	16	31	26	19	41	15	28	33	17	11	18	10	4	14	308	

Note Refer to Appendix 3 for ICD-9 codes used in each category
An individual with more than one diagnosed condition within a category is only coutned once for that category
However, if an individual is diagnosed with a condition in more than one category they are counted in each category

Section 5: Selected Chronic Disabilities and Handicapping Conditions by Health Region

Introduction

This section of the report provides information on the prevalence of selected chronic disabilities and handicapping conditions in children as of year-end, 1998. These conditions, which generally manifest in childhood, are now only reported to the HSR for individuals age 19 and less. Prevalence counts are presented for various handicapping conditions by gender and age group for the province as a whole, and for each health region. The address from the last contact with an HSR reporting source was used to assign the health region of residence; individuals who had died were excluded. If an individual had more than one diagnosed disability within a category, they were only counted once for that category. However, individuals with disabilities in more than one category were counted in each category. The totals at the bottom of each table represent the total number of individuals with one or more of the genetic conditions.

The condition or groups of conditions, reported here include some which can affect vision, hearing, or mobility, as well as broader conditions such as cerebral degenerations. In contrast to the conditions covered in previous sections of this report, many of the conditions presented here do not have a defined genetic basis. They are either descriptive of a physical handicap or childhood disease of a non-genetic nature. It should be noted, however, that some of the conditions presented in this section might overlap congenital or genetic diseases, while other conditions in the same category may be unique. This means, for example, that counts for conditions such as paralytic syndromes and developmental delays or mental retardation may or may not include some individuals with congenital defects or syndromes in which mental retardation, delayed development or paralysis is a factor. On the other hand, the categories for visual and hearing impairments include codes for congenital anomalies of the eye or ear that would result in functional disability.

Many of the categories of disabilities describe a unique condition or disease while others refer to a group of disorders. The following description of some of the disorders within the groups may help better define the nature of these disabilities. Disorders of adrenal glands includes certain conditions whether the basic disorder is in the adrenals or is pituitary induced. These primarily include Cushing's syndrome, Addison's disease, overproduction of ACTH, and adrenogenital/sexual disorders. Specific developmental delays refers to cases where development is related to maturation but is also influenced by nonbiological factors and the coding carries no etiologic implications. Included in this group are specific learning disabilities such as dyslexia and specific spelling difficulty, arithmetical retardation, developmental speech or language disorder, motor retardation, and infants displaying a lack of expected physiological development. Among the cerebral degenerations usually manifest in childhood are such diseases as leucodystrophy, the cerebral lipidosis of Tay-Sachs, and Alper's or Leigh's disease, as well as acquired communicating and obstructive hydrocephalus. Hemiplegia, quadriplegia, paraplegia, and cerebral palsy are reported as specific conditions, while diplegia, monoplegia, and probably most often, cauda equina syndrome have been grouped together as other paralytic syndromes. Many conditions within the category for visual impairments make no distinction as to the degree of disability. They include retinal abnormalities such as detachments, tears, cysts, retinopathies, and hereditary dystrophies as well as inflammations, scars and other disorders, coded separately for the choroid, iris, and ciliary body. All forms of glaucoma and cataract, corneal opacities and degenerations, disorders of refraction (especially astigmatism and myopia) and other vision disturbances such as colour vision deficiency are also included. Most of the cases in this category are for unqualified blindness or low vision in one or both eyes. Congenital abnormalities of the eye have been included in this group and retrolental fibroplasia is the only condition of blindness reported separately. The category addressing degrees of deafness include degenerative and vascular ear disorders, impairment of auditory discrimination, disorders of the acoustic nerve, conductive deafness, deaf mutism, and other unspecified deafness or hearing loss. Traumatic amputations are included in and account for the largest number of other acquired deformities of the limbs.

This section provides information on selected chronic disabilities and handicapping in children as of year-end, 1998. The prevalence counts are presented for various conditions by age group, and are shown for the province as a whole, as well as for each health region based upon last contact address. A complete list of the categories of selected chronic disabilities and handicapping conditions and the corresponding codes included in the tables in this section of the report can be found in Appendix 4. The tables in this section reflect the information reported to the HSR and should not be interpreted as complete provincial or regional statistics. Variability in level of reporting cautions against making regional comparisons. Additional caveats affecting the data can be found in the Guide to Data Interpretation in the General Information section at the beginning of this report.

Highlights

Table 61 provides counts of children (less than 20 years of age) with selected chronic disabilities and handicapping conditions living in the province at year-end, 1998. This prevalence information is presented by gender and age group. Tables 62 through 81 provide similar information for each health region.

There were 10,572 children living in British Columbia and registered with the HSR that had one or more of the selected chronic disabilities or handicapping conditions listed in Appendix 4. Of these, 5,828 were male and 4,581 were female.

The largest numbers of children with these disabilities were between 15 and 19 years of age and the two thirds (66%) were older than age nine. The small number of infants less than one year of age with these disabilities reflects the tendency for many of these conditions to not manifest or be diagnosed until later in childhood.

Several of these disabilities or handicapping conditions appear to be gender specific. About three-quarters of children with hyperkinetic syndrome (77%) and with osteochondropathies (80%) and four fifths of Tourette's (82%) were boys, while three-quarters of those with curvature of the spine (76%) were girls.

The most frequent disabilities and handicapping conditions recorded in the Registry were epilepsy (2,753 children registered), specific developmental delays (2,465), visual impairment/blindness (2,048), and mental retardation (1,537 children registered).

Cerebral palsy is one of the most common crippling diseases of childhood. The most likely etiology is cerebral anoxia and brain trauma during birth. With 1,145 children reported to the Registry, cerebral palsy was the fifth most frequent of the conditions noted.

Table 61

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
B.C. Total

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	3	2	7	6	6	24	0.16
	F	-	-	6	3	7	16	0.11
	T	3	2	13	9	13	40	0.27
Hemangioma and lymphangiona	M	7	64	32	38	33	174	1.19
	F	8	55	34	22	53	172	1.17
	T	15	121	67	60	86	349	2.38
Neurofibromatosis/ von Recklinghausen's	M	-	1	6	9	22	38	0.26
	F	1	5	8	12	17	43	0.29
	T	1	7	19	26	41	94	0.64
Diabetes mellitus	M	2	16	47	116	141	322	2.19
	F	-	22	44	99	161	326	2.22
	T	2	39	91	215	302	649	4.42
Disorders of adrenal glands	M	-	7	11	9	6	33	0.22
	F	4	4	11	8	10	37	0.25
	T	4	11	22	17	16	70	0.48
Tourette's syndrome	M	-	1	9	43	28	81	0.55
	F	-	-	-	10	6	16	0.11
	T	-	1	10	53	35	99	0.67
Hyperkinetic syndrome	M	1	1	57	147	122	328	2.23
	F	-	3	17	32	37	89	0.61
	T	1	4	76	184	160	425	2.90
Specific developmental delays	M	12	132	294	505	548	1,491	10.16
	F	12	93	198	290	273	866	5.90
	T	24	258	544	817	822	2,465	16.79
Mental retardation	M	19	118	184	200	290	811	5.53
	F	17	92	146	186	262	703	4.79
	T	36	221	332	392	556	1,537	10.47
Childhood cerebral degenerations and acquired hydrocephalus	M	10	67	39	57	53	226	1.54
	F	9	45	31	49	40	174	1.19
	T	19	113	70	106	93	401	2.73
Infantile cerebral palsy	M	6	43	147	222	204	622	4.24
	F	4	29	114	198	177	522	3.56
	T	10	73	261	420	381	1,145	7.80
Hemiplegia	M	-	9	16	28	45	98	0.67
	F	-	8	15	24	40	87	0.59
	T	-	17	31	53	85	186	1.27
Quadriplegia	M	-	2	6	11	19	38	0.26
	F	-	3	7	10	16	36	0.25
	T	-	5	13	21	35	74	0.50
Paraplegia	M	-	-	5	6	21	32	0.22
	F	-	-	1	9	7	17	0.12
	T	-	-	6	15	28	49	0.33
Other paralytic syndromes	M	-	9	17	39	48	113	0.77
	F	-	9	28	43	49	129	0.88
	T	-	18	45	82	97	242	1.65
Epilepsy	M	25	220	281	471	488	1,485	10.12
	F	21	142	244	441	410	1,258	8.57
	T	47	366	526	914	900	2,753	18.76
Retrolental fibroplasia	M	10	34	10	44	28	126	0.86
	F	4	38	11	49	23	125	0.85
	T	14	72	21	93	51	251	1.71
All other visual impairments/ blindness	M	27	133	193	333	409	1,095	7.46
	F	20	126	200	256	320	922	6.28
	T	47	270	400	598	733	2,048	13.95
Abnormal auditory perception and deafness	M	5	61	101	130	170	467	3.18
	F	5	38	74	119	133	369	2.51
	T	10	103	176	255	303	847	5.77
Rheumatoid arthritis (juvenile)	M	-	1	4	33	52	90	0.61
	F	-	3	16	41	67	127	0.87
	T	-	4	20	74	119	217	1.48
Disorders of muscle, ligament and fascia	M	2	3	2	17	39	63	0.43
	F	1	3	3	8	24	39	0.27
	T	3	6	5	25	63	102	0.69
Osteochondropathies	M	-	2	18	47	51	118	0.80
	F	-	3	6	10	11	30	0.20
	T	-	5	24	57	62	148	1.01
Other acquired deformities of limbs	M	-	12	17	56	71	156	1.06
	F	1	3	18	42	53	117	0.80
	T	1	15	35	98	124	273	1.86
Curvature of spine	M	-	5	4	5	36	50	0.34
	F	-	3	12	33	114	162	1.10
	T	-	8	16	38	151	213	1.45
Total Diagnoses	M	129	943	1,507	2,573	2,931	8,081	55.06
	F	107	728	1,245	1,994	2,312	6,382	43.48
	T	237	1,740	2,824	4,623	5,259	14,677	100.0
Total Cases	M	112	743	1,095	1,769	2,109	5,828	
	F	94	586	874	1,357	1,670	4,581	
	T	207	1,383	2,030	3,164	3,788	10,572	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 62

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
01 East Kootenay

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	-	-	1	1	0.37
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.37
Hemangioma and lymphangiona	M	-	2	-	-	2	4	1.48
	F	-	-	1	-	2	3	1.11
	T	-	2	1	-	4	7	2.59
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	1	1	0.37
	F	-	-	-	1	1	2	0.74
	T	-	-	-	1	2	3	1.11
Diabetes mellitus	M	-	-	1	2	2	5	1.85
	F	-	-	1	1	3	5	1.85
	T	-	-	2	3	5	10	3.70
Disorders of adrenal glands	M	-	-	-	1	-	1	0.37
	F	-	-	-	1	-	1	0.37
	T	-	-	-	2	-	2	0.74
Tourette's syndrome	M	-	-	-	-	1	1	0.37
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.37
Hyperkinetic syndrome	M	-	-	-	2	2	4	1.48
	F	-	-	-	1	-	1	0.37
	T	-	-	-	3	2	5	1.85
Specific developmental delays	M	-	1	5	6	10	22	8.15
	F	-	1	-	2	7	10	3.70
	T	-	2	5	9	17	33	12.22
Mental retardation	M	1	2	3	5	7	18	6.67
	F	-	4	-	6	4	14	5.19
	T	1	6	3	11	11	32	11.85
Childhood cerebral degenerations and acquired hydrocephalus	M	-	-	-	1	-	1	0.37
	F	-	-	-	-	1	1	0.37
	T	-	-	-	1	1	2	0.74
Infantile cerebral palsy	M	-	-	3	5	8	16	5.93
	F	-	-	3	9	4	16	5.93
	T	-	-	6	14	12	32	11.85
Hemiplegia	M	-	-	-	-	3	3	1.11
	F	-	-	-	-	1	1	0.37
	T	-	-	-	-	4	4	1.48
Quadriplegia	M	-	-	-	-	1	1	0.37
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.37
Paraplegia	M	-	-	-	-	1	1	0.37
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.37
Other paralytic syndromes	M	-	-	-	3	2	5	1.85
	F	-	-	1	-	1	2	0.74
	T	-	-	1	3	3	7	2.59
Epilepsy	M	-	-	2	6	20	28	10.37
	F	-	1	2	8	11	22	8.15
	T	-	1	4	14	31	50	18.52
Retrolental fibroplasia	M	-	-	1	-	1	2	0.74
	F	-	-	-	-	-	-	-
	T	-	-	1	-	1	2	0.74
All other visual impairments/ blindness	M	2	2	1	12	15	32	11.85
	F	-	1	1	3	8	13	4.81
	T	2	3	2	16	23	46	17.04
Abnormal auditory perception and deafness	M	-	-	-	4	5	9	3.33
	F	-	1	2	3	4	10	3.70
	T	-	1	2	7	9	19	7.04
Rheumatoid arthritis (juvenile)	M	-	-	-	-	-	-	-
	F	-	-	1	-	1	2	0.74
	T	-	-	1	-	1	2	0.74
Disorders of muscle, ligament and fascia	M	-	-	-	-	-	-	-
	F	-	-	-	1	1	2	0.74
	T	-	-	-	1	1	2	0.74
Osteochondropathies	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Other acquired deformities of limbs	M	-	-	-	1	2	3	1.11
	F	-	-	-	-	-	-	-
	T	-	-	-	1	2	3	1.11
Curvature of spine	M	-	-	-	2	-	2	0.74
	F	-	-	-	2	1	3	1.11
	T	-	-	-	4	1	5	1.85
Total Diagnoses	**M**	3	7	16	50	84	160	59.26
	F	-	8	12	38	50	108	40.00
	T	3	15	28	90	134	270	100.0
Total Cases	**M**	3	5	14	34	57	113	
	F	-	8	12	27	39	86	
	T	3	13	26	63	96	201	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals

Table 63

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

02 West Kootenay - Boundary

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	-	-	1	1	0.38
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.38
Hemangioma and lymphangiona	M	1	-	1	2	-	4	1.53
	F	-	2	-	-	2	4	1.53
	T	1	2	1	2	2	8	3.05
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	-	-	-	-	2	2	0.76
	T	-	-	-	-	2	2	0.76
Diabetes mellitus	M	-	-	1	3	4	8	3.05
	F	-	-	-	2	3	5	1.91
	T	-	-	1	5	7	13	4.96
Disorders of adrenal glands	M	-	1	-	-	-	1	0.38
	F	-	-	-	1	-	1	0.38
	T	-	1	-	1	-	2	0.76
Tourette's syndrome	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hyperkinetic syndrome	M	-	-	-	1	-	1	0.38
	F	-	1	-	-	2	3	1.15
	T	-	1	-	1	2	4	1.53
Specific developmental delays	M	-	1	3	8	9	21	8.02
	F	-	2	-	4	7	13	4.96
	T	-	4	5	12	16	37	14.12
Mental retardation	M	-	1	5	10	4	20	7.63
	F	-	2	4	2	6	14	5.34
	T	-	3	9	13	10	35	13.36
Childhood cerebral degenerations and acquired hydrocephalus	M	1	2	1	2	-	6	2.29
	F	-	-	1	1	-	2	0.76
	T	1	2	2	3	-	8	3.05
Infantile cerebral palsy	M	-	2	1	1	7	11	4.20
	F	-	-	2	6	5	13	4.96
	T	-	2	3	7	12	24	9.16
Hemiplegia	M	-	-	-	1	1	2	0.76
	F	-	-	-	-	2	2	0.76
	T	-	-	-	1	3	4	1.53
Quadriplegia	M	-	-	-	-	-	-	-
	F	-	-	-	-	1	1	0.38
	T	-	-	-	-	1	1	0.38
Paraplegia	M	-	-	-	-	-	-	-
	F	-	-	-	-	1	1	0.38
	T	-	-	-	-	1	1	0.38
Other paralytic syndromes	M	-	-	-	1	1	2	0.76
	F	-	-	1	3	3	7	2.67
	T	-	-	1	4	4	9	3.44
Epilepsy	M	-	5	2	3	4	14	5.34
	F	-	1	-	2	11	14	5.34
	T	-	6	2	5	15	28	10.69
Retrolental fibroplasia	M	1	-	-	-	2	3	1.15
	F	-	1	1	1	-	3	1.15
	T	1	1	1	1	2	6	2.29
All other visual impairments/ blindness	M	-	4	4	6	7	21	8.02
	F	-	-	6	1	19	26	9.92
	T	-	4	10	7	26	47	17.94
Abnormal auditory perception and deafness	M	-	1	1	-	3	5	1.91
	F	-	-	-	2	4	6	2.29
	T	-	1	1	2	7	11	4.20
Rheumatoid arthritis (juvenile)	M	-	-	-	-	-	-	-
	F	-	-	-	3	3	6	2.29
	T	-	-	-	3	3	6	2.29
Disorders of muscle, ligament and fascia	M	-	-	-	1	1	2	0.76
	F	-	-	-	-	1	1	0.38
	T	-	-	-	1	2	3	1.15
Osteochondropathies	M	-	-	-	-	3	3	1.15
	F	-	-	-	-	-	-	-
	T	-	-	-		3	3	1.15
Other acquired deformities of limbs	M	-	2	-	-	1	3	1.15
	F	-	-	-	2	1	3	1.15
	T	-	2	-	2	2	6	2.29
Curvature of spine	M	-	-	-	-	-	-	-
	F	-	-	-	1	2	3	1.15
	T	-	-	-	1	2	3	1.15
Total Diagnoses	M	3	19	19	39	48	128	48.85
	F	-	9	15	31	75	130	49.62
	T	3	29	36	71	123	262	100.0
Total Cases	M	3	16	16	33	41	109	
	F	-	8	10	24	59	101	
	T	3	25	28	58	100	214	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 64

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
03 North Okanagan

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	3	1	-	1	5	2.21
	F	-	1	-	-	1	2	0.88
	T	-	4	1	-	2	7	3.10
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	-	-	-	-	1	1	0.44
	T	-	-	-	-	1	1	0.44
Diabetes mellitus	M	-	-	1	-	1	2	0.88
	F	-	-	-	3	2	5	2.21
	T	-	-	1	3	3	7	3.10
Disorders of adrenal glands	M	-	1	-	2	-	3	1.33
	F	-	-	-	-	-	-	-
	T	-	1	-	2	-	3	1.33
Tourette's syndrome	M	-	-	-	-	4	4	1.77
	F	-	-	-	-	-	-	-
	T	-	-	-	-	4	4	1.77
Hyperkinetic syndrome	M	-	-	2	5	7	14	6.19
	F	-	-	-	1	-	1	0.44
	T	-	-	2	6	7	15	6.64
Specific developmental delays	M	2	-	7	7	9	25	11.06
	F	1	1	-	8	4	14	6.19
	T	3	1	8	16	13	41	18.14
Mental retardation	M	-	2	3	6	7	18	7.96
	F	-	2	-	5	7	14	6.19
	T	-	4	3	11	14	32	14.16
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	2	-	1	4	1.77
	F	1	-	-	1	1	3	1.33
	T	1	1	2	1	2	7	3.10
Infantile cerebral palsy	M	-	-	3	6	3	12	5.31
	F	-	-	1	2	3	6	2.65
	T	-	-	4	8	6	18	7.96
Hemiplegia	M	-	-	-	-	-	-	-
	F	-	1	2	-	-	3	1.33
	T	-	1	2	-	-	3	1.33
Quadriplegia	M	-	-	-	2	-	2	0.88
	F	-	-	-	-	-	-	-
	T	-	-	-	2	-	2	0.88
Paraplegia	M	-	-	-	1	-	1	0.44
	F	-	-	-	-	-	-	-
	T	-	-	-	1	-	1	0.44
Other paralytic syndromes	M	-	-	-	-	1	1	0.44
	F	-	-	1	-	-	1	0.44
	T	-	-	1	-	1	2	0.88
Epilepsy	M	-	2	2	1	2	7	3.10
	F	-	3	1	5	4	13	5.75
	T	-	5	3	6	6	20	8.85
Retrolental fibroplasia	M	-	-	-	1	-	1	0.44
	F	-	1	-	-	-	1	0.44
	T	-	1	-	1	-	2	0.88
All other visual impairments/ blindness	M	-	1	2	13	5	21	9.29
	F	-	3	3	6	7	19	8.41
	T	-	4	5	19	12	40	17.70
Abnormal auditory perception and deafness	M	-	-	1	1	1	3	1.33
	F	-	-	2	1	1	4	1.77
	T	-	-	3	2	2	7	3.10
Rheumatoid arthritis (juvenile)	M	-	-	1	-	1	2	0.88
	F	-	-	-	3	1	4	1.77
	T	-	-	1	3	2	6	2.65
Disorders of muscle, ligament and fascia	M	-	-	-	-	1	1	0.44
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.44
Osteochondropathies	M	-	-	-	1	1	2	0.88
	F	-	-	-	-	1	1	0.44
	T	-	-	-	1	2	3	1.33
Other acquired deformities of limbs	M	-	1	-	2	-	3	1.33
	F	-	-	-	-	1	1	0.44
	T	-	1	-	2	1	4	1.77
Curvature of spine	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Total Diagnoses	M	2	11	25	48	45	131	57.96
	F	2	12	10	35	34	93	41.15
	T	4	23	36	84	79	226	100.0
Total Cases	M	2	10	18	34	34	98	
	F	2	11	8	25	27	73	
	T	4	21	27	60	61	173	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 65
Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
04 South Okanagan Similkameen

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	-	-	-	-	-	-	-
	F	-	-	1	-	-	1	0.19
	T	-	-	1	-	-	1	0.19
Hemangioma and lymphangiona	M	-	5	3	2	3	13	2.42
	F	2	6	1	1	2	12	2.23
	T	2	11	5	3	5	26	4.84
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	3	3	0.56
	F	-	-	-	-	2	2	0.37
	T	-	-	-	-	6	6	1.12
Diabetes mellitus	M	-	-	-	1	2	3	0.56
	F	-	3	1	-	6	10	1.86
	T	-	3	1	1	8	13	2.42
Disorders of adrenal glands	M	-	1	1	-	1	3	0.56
	F	-	1	-	-	-	1	0.19
	T	-	2	1	-	1	4	0.74
Tourette's syndrome	M	-	-	2	2	1	5	0.93
	F	-	-	-	-	-	-	-
	T	-	-	2	2	1	5	0.93
Hyperkinetic syndrome	M	-	-	-	5	6	11	2.05
	F	-	-	-	3	1	4	0.74
	T	-	-	-	8	7	15	2.79
Specific developmental delays	M	1	4	5	8	21	39	7.26
	F	-	3	6	9	8	26	4.84
	T	1	9	14	17	29	70	13.04
Mental retardation	M	-	7	8	3	14	32	5.96
	F	2	8	5	5	14	34	6.33
	T	2	16	13	9	28	68	12.66
Childhood cerebral degenerations and acquired hydrocephalus	M	-	6	-	1	2	9	1.68
	F	-	3	1	6	4	14	2.61
	T	-	9	1	7	6	23	4.28
Infantile cerebral palsy	M	1	3	4	7	7	22	4.10
	F	-	-	-	7	9	16	2.98
	T	1	3	4	14	16	38	7.08
Hemiplegia	M	-	-	-	2	2	4	0.74
	F	-	-	-	1	-	1	0.19
	T	-	-	-	3	2	5	0.93
Quadriplegia	M	-	-	-	-	-	-	-
	F	-	-	-	1	-	1	0.19
	T	-	-	-	1	-	1	0.19
Paraplegia	M	-	-	-	1	1	2	0.37
	F	-	-	-	-	-	-	-
	T	-	-	-	1	1	2	0.37
Other paralytic syndromes	M	-	-	-	-	-	-	-
	F	-	-	2	3	2	7	1.30
	T	-	-	2	3	2	7	1.30
Epilepsy	M	2	16	4	6	16	44	8.19
	F	4	6	7	12	9	38	7.08
	T	6	22	11	18	25	82	15.27
Retrolental fibroplasia	M	-	1	-	4	-	5	0.93
	F	-	1	-	-	1	2	0.37
	T	-	2	-	4	1	7	1.30
All other visual impairments/ blindness	M	1	6	7	26	12	52	9.68
	F	1	7	9	21	8	46	8.57
	T	2	13	17	47	20	99	18.44
Abnormal auditory perception and deafness	M	1	2	-	10	6	19	3.54
	F	1	1	3	3	5	13	2.42
	T	2	3	4	13	11	33	6.15
Rheumatoid arthritis (juvenile)	M	-	-	1	1	2	4	0.74
	F	-	-	-	-	1	1	0.19
	T	-	-	1	1	3	5	0.93
Disorders of muscle, ligament and fascia	M	-	-	-	1	4	5	0.93
	F	-	-	-	-	1	1	0.19
	T	-	-	-	1	5	6	1.12
Osteochondropathies	M	-	-	-	1	2	3	0.56
	F	-	-	-	-	-	-	-
	T	-	-	-	1	2	3	0.56
Other acquired deformities of limbs	M	-	-	-	-	2	2	0.37
	F	-	-	1	2	5	8	1.49
	T	-	-	1	2	7	10	1.86
Curvature of spine	M	-	1	-	-	1	2	0.37
	F	-	-	-	-	6	6	1.12
	T	-	1	-	-	7	8	1.49
Total Diagnoses	**M**	6	52	35	81	108	282	52.51
	F	10	39	37	74	84	244	45.44
	T	16	94	78	156	193	537	100.0
Total Cases	**M**	6	39	29	54	77	205	
	F	9	34	28	37	63	171	
	T	15	76	62	92	141	386	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 66
Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
05 Thompson

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	-	2	-	2	4	0.86
	F	-	3	3	-	4	10	2.15
	T	-	3	5	-	6	14	3.00
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	-	-	1	0.21
	F	-	-	-	-	1	1	0.21
	T	-	-	1	1	1	3	0.64
Diabetes mellitus	M	-	-	-	2	2	4	0.86
	F	-	-	-	-	5	5	1.07
	T	-	-	-	2	7	9	1.93
Disorders of adrenal glands	M	-	-	-	1	1	2	0.43
	F	1	-	-	1	1	3	0.64
	T	1	-	-	2	2	5	1.07
Tourette's syndrome	M	-	-	-	-	2	2	0.43
	F	-	-	-	-	-	-	-
	T	-	-	1	-	2	3	0.64
Hyperkinetic syndrome	M	-	-	1	3	1	5	1.07
	F	-	-	-	2	1	3	0.64
	T	-	-	1	5	2	8	1.72
Specific developmental delays	M	-	4	8	16	28	56	12.02
	F	-	2	1	7	13	23	4.94
	T	-	7	13	24	42	86	18.45
Mental retardation	M	-	4	2	8	13	27	5.79
	F	-	-	6	9	9	24	5.15
	T	-	4	8	17	23	52	11.16
Childhood cerebral degenerations and acquired hydrocephalus	M	-	5	2	4	5	16	3.43
	F	-	2	-	1	1	4	0.86
	T	-	7	2	5	6	20	4.29
Infantile cerebral palsy	M	1	2	2	11	10	26	5.58
	F	-	2	2	9	9	22	4.72
	T	1	4	4	20	19	48	10.30
Hemiplegia	M	-	-	1	1	-	2	0.43
	F	-	-	-	3	2	5	1.07
	T	-	-	1	4	2	7	1.50
Quadriplegia	M	-	-	1	-	2	3	0.64
	F	-	-	-	-	2	2	0.43
	T	-	-	1	-	4	5	1.07
Paraplegia	M	-	-	1	1	-	2	0.43
	F	-	-	-	1	1	2	0.43
	T	-	-	1	2	1	4	0.86
Other paralytic syndromes	M	-	-	1	2	2	5	1.07
	F	-	1	-	2	2	5	1.07
	T	-	1	1	4	4	10	2.15
Epilepsy	M	-	4	4	11	14	33	7.08
	F	1	5	3	10	18	37	7.94
	T	1	9	7	21	32	70	15.02
Retrolental fibroplasia	M	-	-	-	-	4	4	0.86
	F	-	1	-	-	-	1	0.21
	T	-	1	-	-	4	5	1.07
All other visual impairments/ blindness	M	-	2	5	4	20	31	6.65
	F	1	5	3	7	20	36	7.73
	T	1	7	9	11	40	68	14.59
Abnormal auditory perception and deafness	M	-	1	-	1	13	15	3.22
	F	-	-	-	2	4	6	1.29
	T	-	1	-	4	17	22	4.72
Rheumatoid arthritis (juvenile)	M	-	-	-	-	2	2	0.43
	F	-	-	1	1	3	5	1.07
	T	-	-	1	1	5	7	1.50
Disorders of muscle, ligament and fascia	M	-	-	-	-	2	2	0.43
	F	-	-	-	-	1	1	0.21
	T	-	-	-	-	3	3	0.64
Osteochondropathies	M	-	-	-	-	3	3	0.64
	F	-	1	-	-	-	1	0.21
	T	-	1	-	-	3	4	0.86
Other acquired deformities of limbs	M	-	-	-	2	2	4	0.86
	F	-	-	-	1	1	2	0.43
	T	-	-	-	3	3	6	1.29
Curvature of spine	M	-	-	-	-	2	2	0.43
	F	-	-	-	-	5	5	1.07
	T	-	-	-	-	7	7	1.50
Total Diagnoses	**M**	1	22	31	67	130	251	53.86
	F	3	22	19	56	103	203	43.56
	T	4	45	56	126	235	466	100.0
Total Cases	**M**	1	16	22	46	99	184	
	F	3	15	19	44	74	155	
	T	4	32	45	93	174	348	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 67

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

06 Fraser Valley

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	-	-	1	-	1	2	0.23
	F	-	-	-	-	-	-	-
	T	-	-	1	-	1	2	0.23
Hemangioma and lymphangiona	M	-	4	2	-	2	8	0.93
	F	-	6	-	1	6	13	1.51
	T	-	10	2	1	8	21	2.43
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	1	4	6	0.70
	F	-	-	1	-	-	1	0.12
	T	-	-	2	1	4	7	0.81
Diabetes mellitus	M	-	1	2	3	7	13	1.51
	F	-	2	3	3	7	15	1.74
	T	-	4	5	6	14	29	3.36
Disorders of adrenal glands	M	-	-	-	1	1	2	0.23
	F	-	-	3	1	-	4	0.46
	T	-	-	3	2	1	6	0.70
Tourette's syndrome	M	-	-	-	2	-	2	0.23
	F	-	-	-	1	-	1	0.12
	T	-	-	-	3	-	3	0.35
Hyperkinetic syndrome	M	-	-	2	8	8	18	2.09
	F	-	-	-	5	3	8	0.93
	T	-	-	2	14	11	27	3.13
Specific developmental delays	M	-	8	11	18	19	56	6.49
	F	2	3	11	14	18	48	5.56
	T	2	16	24	33	37	112	12.98
Mental retardation	M	-	17	16	8	12	53	6.14
	F	1	7	11	11	13	43	4.98
	T	1	24	27	19	25	96	11.12
Childhood cerebral degenerations and acquired hydrocephalus	M	-	6	4	2	5	17	1.97
	F	-	5	4	5	6	20	2.32
	T	-	11	8	7	11	37	4.29
Infantile cerebral palsy	M	-	3	11	16	13	43	4.98
	F	3	1	13	13	11	41	4.75
	T	3	4	24	29	24	84	9.73
Hemiplegia	M	-	2	1	1	2	6	0.70
	F	-	1	2	1	5	9	1.04
	T	-	3	3	2	7	15	1.74
Quadriplegia	M	-	1	-	-	2	3	0.35
	F	-	-	-	-	-	-	-
	T	-	1	-	-	2	3	0.35
Paraplegia	M	-	-	-	-	-	-	-
	F	-	-	-	3	1	4	0.46
	T	-	-	-	3	1	4	0.46
Other paralytic syndromes	M	-	-	2	2	3	7	0.81
	F	-	1	2	5	1	9	1.04
	T	-	1	4	7	4	16	1.85
Epilepsy	M	1	10	14	26	34	85	9.85
	F	1	9	19	27	17	73	8.46
	T	2	19	33	53	51	158	18.31
Retrolental fibroplasia	M	-	2	-	-	4	6	0.70
	F	-	1	-	3	1	5	0.58
	T	-	3	-	3	5	11	1.27
All other visual impairments/ blindness	M	-	10	10	28	33	81	9.39
	F	7	8	10	20	24	69	8.00
	T	7	21	20	51	57	156	18.08
Abnormal auditory perception and deafness	M	-	-	3	5	7	15	1.74
	F	-	1	1	3	7	12	1.39
	T	-	1	4	8	14	27	3.13
Rheumatoid arthritis (juvenile)	M	-	-	-	2	2	4	0.46
	F	-	-	-	2	2	4	0.46
	T	-	-	-	4	4	8	0.93
Disorders of muscle, ligament and fascia	M	-	-	-	1	1	2	0.23
	F	-	-	-	-	-	-	-
	T	-	-	-	1	1	2	0.23
Osteochondropathies	M	-	-	1	3	5	9	1.04
	F	-	-	1	-	2	3	0.35
	T	-	-	2	3	7	12	1.39
Other acquired deformities of limbs	M	-	1	-	2	3	6	0.70
	F	-	-	2	2	-	4	0.46
	T	-	1	2	4	3	10	1.16
Curvature of spine	M	-	1	-	-	4	5	0.58
	F	-	-	3	1	8	12	1.39
	T	-	1	3	1	12	17	1.97
Total Diagnoses	M	1	66	81	129	172	449	52.03
	F	14	45	86	121	132	398	46.12
	T	15	120	169	255	304	863	100.0
Total Cases	M	1	52	61	81	123	318	
	F	7	41	62	78	96	284	
	T	8	100	125	161	219	613	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 68

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
07 South Fraser Valley

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	1	1	1	1	1	5	0.25
	F	-	-	1	-	1	2	0.10
	T	1	1	2	1	2	7	0.35
Hemangioma and lymphangiona	M	-	11	3	3	1	18	0.90
	F	-	5	4	3	4	16	0.80
	T	-	16	7	6	5	34	1.71
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	2	3	5	0.25
	F	-	-	1	3	1	5	0.25
	T	-	-	3	6	4	13	0.65
Diabetes mellitus	M	-	2	11	21	31	65	3.26
	F	-	1	11	16	40	68	3.42
	T	-	3	22	37	71	133	6.68
Disorders of adrenal glands	M	-	-	3	2	2	7	0.35
	F	2	1	1	-	4	8	0.40
	T	2	1	4	2	6	15	0.75
Tourette's syndrome	M	-	-	-	4	5	9	0.45
	F	-	-	-	1	2	3	0.15
	T	-	-	-	5	8	13	0.65
Hyperkinetic syndrome	M	-	-	7	22	31	60	3.01
	F	-	-	1	2	5	8	0.40
	T	-	-	9	24	36	69	3.47
Specific developmental delays	M	-	12	37	61	56	166	8.34
	F	1	15	24	36	28	104	5.22
	T	1	31	76	100	84	292	14.67
Mental retardation	M	6	17	26	20	28	97	4.87
	F	5	10	20	40	22	97	4.87
	T	11	29	46	60	50	196	9.84
Childhood cerebral degenerations and acquired hydrocephalus	M	-	7	7	15	12	41	2.06
	F	1	5	6	12	10	34	1.71
	T	1	13	13	27	22	76	3.82
Infantile cerebral palsy	M	-	3	24	25	29	81	4.07
	F	-	6	14	28	12	60	3.01
	T	-	9	38	53	41	141	7.08
Hemiplegia	M	-	1	3	5	4	13	0.65
	F	-	1	-	5	6	12	0.60
	T	-	2	3	10	10	25	1.26
Quadriplegia	M	-	-	-	2	2	4	0.20
	F	-	-	-	-	2	2	0.10
	T	-	-	-	2	4	6	0.30
Paraplegia	M	-	-	1	1	2	4	0.20
	F	-	-	-	1	-	1	0.05
	T	-	-	1	2	2	5	0.25
Other paralytic syndromes	M	-	2	-	4	5	11	0.55
	F	-	1	3	8	7	19	0.95
	T	-	3	3	12	12	30	1.51
Epilepsy	M	6	23	48	79	64	220	11.05
	F	5	26	32	61	62	186	9.34
	T	11	52	81	140	126	410	20.59
Retrolental fibroplasia	M	-	3	2	7	2	14	0.70
	F	-	4	2	8	4	18	0.90
	T	-	7	4	15	6	32	1.61
All other visual impairments/ blindness	M	10	14	29	34	39	126	6.33
	F	3	6	29	31	43	112	5.63
	T	13	21	58	65	82	239	12.00
Abnormal auditory perception and deafness	M	1	5	9	11	28	54	2.71
	F	-	5	8	13	15	41	2.06
	T	1	11	17	24	43	96	4.82
Rheumatoid arthritis (juvenile)	M	-	-	-	2	7	9	0.45
	F	-	-	4	7	17	28	1.41
	T	-	-	4	9	24	37	1.86
Disorders of muscle, ligament and fascia	M	1	-	-	1	5	7	0.35
	F	-	1	-	1	1	3	0.15
	T	1	1	-	2	6	10	0.50
Osteochondropathies	M	-	-	3	8	10	21	1.05
	F	-	1	-	2	4	7	0.35
	T	-	1	3	10	14	28	1.41
Other acquired deformities of limbs	M	-	3	5	4	13	25	1.26
	F	-	-	6	5	9	20	1.00
	T	-	3	11	9	22	45	2.26
Curvature of spine	M	-	1	-	2	3	6	0.30
	F	-	1	3	3	26	33	1.66
	T	-	2	3	5	29	39	1.96
Total Diagnoses	**M**	25	105	219	336	383	1,068	53.64
	F	17	89	171	286	325	887	44.55
	T	42	206	409	626	709	1,991	100.00
Total Cases	**M**	21	83	153	217	280	754	
	F	15	69	116	177	247	624	
	T	36	161	284	398	528	1,407	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category.However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 69
Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
08 Simon Fraser

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	1	-	-	1	0.10
	F	-	-	-	-	1	1	0.10
	T	-	-	1	-	1	2	0.20
Hemangioma and lymphangiona	M	1	7	-	6	1	15	1.51
	F	3	5	2	-	2	12	1.21
	T	4	12	2	6	3	27	2.71
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	1	1	3	0.30
	F	-	-	-	1	-	1	0.10
	T	-	-	1	2	1	4	0.40
Diabetes mellitus	M	-	4	1	9	14	28	2.81
	F	-	1	6	14	10	31	3.12
	T	-	5	7	23	24	59	5.93
Disorders of adrenal glands	M	-	2	1	-	-	3	0.30
	F	1	-	-	-	-	1	0.10
	T	1	2	1	-	-	4	0.40
Tourette's syndrome	M	-	-	1	2	3	6	0.60
	F	-	-	-	-	-	-	-
	T	-	-	1	2	3	6	0.60
Hyperkinetic syndrome	M	-	-	4	12	13	29	2.91
	F	-	-	-	1	4	5	0.50
	T	-	-	4	14	17	35	3.52
Specific developmental delays	M	1	19	10	32	33	95	9.55
	F	2	8	12	11	14	47	4.72
	T	3	30	27	45	47	152	15.28
Mental retardation	M	-	3	13	10	18	44	4.42
	F	1	9	10	7	16	43	4.32
	T	1	14	25	19	34	93	9.35
Childhood cerebral degenerations and acquired hydrocephalus	M	2	7	1	4	5	19	1.91
	F	-	3	5	2	3	13	1.31
	T	2	10	6	6	8	32	3.22
Infantile cerebral palsy	M	1	6	8	16	17	48	4.82
	F	-	-	11	10	8	29	2.91
	T	1	6	19	26	25	77	7.74
Hemiplegia	M	-	3	3	3	3	12	1.21
	F	-	-	2	-	1	3	0.30
	T	-	3	5	3	4	15	1.51
Quadriplegia	M	-	-	-	-	4	4	0.40
	F	-	-	2	-	1	3	0.30
	T	-	-	2	-	5	7	0.70
Paraplegia	M	-	-	-	-	-	-	-
	F	-	-	-	1	-	1	0.10
	T	-	-	-	1	-	1	0.10
Other paralytic syndromes	M	-	-	-	3	5	8	0.80
	F	-	-	6	3	3	12	1.21
	T	-	-	6	6	8	20	2.01
Epilepsy	M	-	25	10	19	35	89	8.94
	F	-	9	18	22	21	70	7.04
	T	-	34	28	41	56	159	15.98
Retrolental fibroplasia	M	1	4	1	3	-	9	0.90
	F	-	2	4	5	1	12	1.21
	T	1	6	5	8	1	21	2.11
All other visual impairments/ blindness	M	5	12	15	29	39	100	10.05
	F	2	4	17	20	22	65	6.53
	T	7	20	33	49	61	170	17.09
Abnormal auditory perception and deafness	M	-	3	4	7	6	20	2.01
	F	1	1	2	7	7	18	1.81
	T	1	6	6	16	13	42	4.22
Rheumatoid arthritis (juvenile)	M	-	-	-	3	4	7	0.70
	F	-	-	2	4	5	11	1.11
	T	-	-	2	7	9	18	1.81
Disorders of muscle, ligament and fascia	M	-	2	-	3	2	7	0.70
	F	-	-	-	1	2	3	0.30
	T	-	2	-	4	4	10	1.01
Osteochondropathies	M	-	-	4	2	1	7	0.70
	F	-	-	1	1	-	2	0.20
	T	-	-	5	3	1	9	0.90
Other acquired deformities of limbs	M	-	2	-	7	3	12	1.21
	F	-	-	3	5	4	12	1.21
	T	-	2	3	12	7	24	2.41
Curvature of spine	M	-	-	-	-	1	1	0.10
	F	-	1	1	3	2	7	0.70
	T	-	1	1	3	3	8	0.80
Total Diagnoses	**M**	11	99	78	171	209	567	56.98
	F	10	43	104	118	127	402	40.40
	T	21	153	190	296	336	995	100.0
Total Cases	**M**	7	73	59	121	140	400	
	F	10	38	57	80	105	290	
	T	17	116	123	205	245	706	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 70

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

09 Coast Garibaldi

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	-	1	-	1	2	0.71
	F	-	2	2	2	3	9	3.18
	T	-	2	3	2	4	11	3.89
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.35
Diabetes mellitus	M	-	2	1	-	2	5	1.77
	F	-	4	-	2	5	11	3.89
	T	-	6	1	2	7	16	5.65
Disorders of adrenal glands	M	-	-	-	-	-	-	-
	F	-	-	-	-	1	1	0.35
	T	-	-	-	-	1	1	0.35
Tourette's syndrome	M	-	-	-	1	-	1	0.35
	F	-	-	-	-	1	1	0.35
	T	-	-	-	1	1	2	0.71
Hyperkinetic syndrome	M	-	-	1	3	6	10	3.53
	F	-	-	1	1	3	5	1.77
	T	-	-	2	4	10	16	5.65
Specific developmental delays	M	-	2	10	13	7	32	11.31
	F	-	2	4	4	4	14	4.95
	T	-	5	15	18	11	49	17.31
Mental retardation	M	3	-	2	3	6	14	4.95
	F	-	-	3	-	5	8	2.83
	T	3	1	5	3	11	23	8.13
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	3	2	-	6	2.12
	F	-	1	-	-	1	2	0.71
	T	-	2	3	2	1	8	2.83
Infantile cerebral palsy	M	-	-	3	5	4	12	4.24
	F	-	-	4	4	5	13	4.59
	T	-	-	7	9	9	25	8.83
Hemiplegia	M	-	-	-	-	1	1	0.35
	F	-	-	-	-	1	1	0.35
	T	-	-	-	-	2	2	0.71
Quadriplegia	M	-	-	1	-	1	2	0.71
	F	-	-	-	-	-	-	-
	T	-	-	1	-	1	2	0.71
Paraplegia	M	-	-	-	-	2	2	0.71
	F	-	-	-	-	-	-	-
	T	-	-	-	-	2	2	0.71
Other paralytic syndromes	M	-	-	-	2	4	6	2.12
	F	-	-	-	1	1	2	0.71
	T	-	-	-	3	5	8	2.83
Epilepsy	M	-	4	4	5	13	26	9.19
	F	-	4	5	6	12	27	9.54
	T	-	8	9	11	26	54	19.08
Retrolental fibroplasia	M	-	-	-	-	-	-	-
	F	-	-	-	4	1	5	1.77
	T	-	-	-	4	1	5	1.77
All other visual impairments/ blindness	M	-	3	-	7	2	12	4.24
	F	-	2	2	3	4	11	3.89
	T	-	5	2	10	6	23	8.13
Abnormal auditory perception and deafness	M	-	-	3	1	7	11	3.89
	F	-	-	-	-	3	3	1.06
	T	-	-	3	2	10	15	5.30
Rheumatoid arthritis (juvenile)	M	-	-	-	-	2	2	0.71
	F	-	-	-	1	-	1	0.35
	T	-	-	-	1	2	3	1.06
Disorders of muscle, ligament and fascia	M	-	-	-	1	1	2	0.71
	F	-	-	-	-	1	1	0.35
	T	-	-	-	1	2	3	1.06
Osteochondropathies	M	-	-	1	-	-	1	0.35
	F	-	-	-	3	-	3	1.06
	T	-	-	1	3	-	4	1.41
Other acquired deformities of limbs	M	-	-	-	2	2	4	1.41
	F	-	-	-	-	1	1	0.35
	T	-	-	-	2	3	5	1.77
Curvature of spine	M	-	-	-	-	2	2	0.71
	F	-	-	-	1	1	2	0.71
	T	-	-	-	1	4	5	1.77
Total Diagnoses	**M**	3	12	30	45	63	153	54.06
	F	-	15	21	32	53	121	42.76
	T	3	29	52	79	120	283	100.0
Total Cases	**M**	3	10	21	27	50	111	
	F	-	10	13	24	40	87	
	T	3	22	35	52	91	203	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 71

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

10 Cental Vancouver Island

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	1	-	-	1	2	4	0.48
	F	-	-	-	-	2	2	0.24
	T	1	-	-	1	4	6	0.72
Hemangioma and lymphangiona	M	-	3	2	6	3	14	1.68
	F	1	2	1	-	3	7	0.84
	T	1	5	3	6	6	21	2.52
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	1	2	-	2	1	6	0.72
	T	1	2	-	2	1	6	0.72
Diabetes mellitus	M	-	1	4	4	7	16	1.92
	F	-	-	2	7	9	18	2.16
	T	-	1	6	11	16	34	4.09
Disorders of adrenal glands	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Tourette's syndrome	M	-	-	-	-	3	3	0.36
	F	-	-	-	-	1	1	0.12
	T	-	-	-	-	4	4	0.48
Hyperkinetic syndrome	M	-	1	-	2	-	3	0.36
	F	-	-	2	1	-	3	0.36
	T	-	1	2	3	-	6	0.72
Specific developmental delays	M	2	10	21	16	38	87	10.46
	F	1	5	13	12	20	51	6.13
	T	3	16	36	28	58	141	16.95
Mental retardation	M	2	17	7	11	23	60	7.21
	F	-	5	5	5	19	34	4.09
	T	2	22	12	16	42	94	11.30
Childhood cerebral degenerations and acquired hydrocephalus	M	-	8	3	2	1	14	1.68
	F	-	5	4	2	2	13	1.56
	T	-	13	7	4	3	27	3.25
Infantile cerebral palsy	M	-	1	6	14	14	35	4.21
	F	-	3	4	14	12	33	3.97
	T	-	4	10	28	26	68	8.17
Hemiplegia	M	-	1	2	-	5	8	0.96
	F	-	-	-	1	3	4	0.48
	T	-	1	2	1	8	12	1.44
Quadriplegia	M	-	-	-	-	1	1	0.12
	F	-	-	-	2	-	2	0.24
	T	-	-	-	2	1	3	0.36
Paraplegia	M	-	-	-	1	2	3	0.36
	F	-	-	-	-	-	-	-
	T	-	-	-	1	2	3	0.36
Other paralytic syndromes	M	-	-	2	3	-	5	0.60
	F	-	2	2	1	3	8	0.96
	T	-	2	4	4	3	13	1.56
Epilepsy	M	1	10	12	17	27	67	8.05
	F	1	4	11	23	30	69	8.29
	T	2	15	23	40	57	137	16.47
Retrolental fibroplasia	M	-	3	1	1	2	7	0.84
	F	-	3	-	4	2	9	1.08
	T	-	6	1	5	4	16	1.92
All other visual impairments/ blindness	M	2	4	12	21	25	64	7.69
	F	-	13	11	11	25	60	7.21
	T	2	17	23	32	50	124	14.90
Abnormal auditory perception and deafness	M	-	10	3	6	13	32	3.85
	F	-	4	4	6	7	21	2.52
	T	-	14	7	12	20	53	6.37
Rheumatoid arthritis (juvenile)	M	-	1	-	2	3	6	0.72
	F	-	-	2	3	10	15	1.80
	T	-	1	2	5	13	21	2.52
Disorders of muscle, ligament and fascia	M	-	-	-	-	4	4	0.48
	F	-	-	1	-	5	6	0.72
	T	-	-	1	-	9	10	1.20
Osteochondropathies	M	-	-	2	3	4	9	1.08
	F	-	-	1	-	-	1	0.12
	T	-	-	3	3	4	10	1.20
Other acquired deformities of limbs	M	-	-	2	2	3	7	0.84
	F	-	-	1	2	3	6	0.72
	T	-	-	3	4	6	13	1.56
Curvature of spine	M	-	1	-	-	1	2	0.24
	F	-	-	1	3	4	8	0.96
	T	-	1	1	3	5	10	1.20
Total Diagnoses	M	8	71	79	112	181	451	54.21
	F	4	48	65	99	161	377	45.31
	T	12	121	146	211	342	832	100.0
Total Cases	M	7	55	59	68	127	316	
	F	4	39	50	62	114	269	
	T	11	95	111	130	241	588	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 72

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
11 Upper Island/Central Coast

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	1	-	-	1	0.18
	F	-	-	-	-	-	-	-
	T	-	-	1	-	-	1	0.18
Hemangioma and lymphangiona	M	1	1	1	1	1	5	0.92
	F	-	3	2	1	2	8	1.47
	T	1	4	3	2	3	13	2.39
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	1	1	0.18
	F	-	-	1	-	-	1	0.18
	T	-	-	1	-	1	2	0.37
Diabetes mellitus	M	-	-	-	2	3	5	0.92
	F	-	-	-	4	7	11	2.03
	T	-	-	-	6	10	16	2.95
Disorders of adrenal glands	M	-	-	-	1	-	1	0.18
	F	-	-	1	1	-	2	0.37
	T	-	-	1	2	-	3	0.55
Tourette's syndrome	M	-	1	-	-	-	1	0.18
	F	-	-	-	-	-	-	-
	T	-	1	-	-	-	1	0.18
Hyperkinetic syndrome	M	-	-	-	-	3	3	0.55
	F	-	-	-	-	-	-	-
	T	-	-	-	-	3	3	0.55
Specific developmental delays	M	-	4	15	14	27	60	11.05
	F	-	6	3	7	14	30	5.52
	T	-	10	18	22	41	91	16.76
Mental retardation	M	1	3	6	9	9	28	5.16
	F	2	3	4	7	14	30	5.52
	T	3	6	10	17	23	59	10.87
Childhood cerebral degenerations and acquired hydrocephalus	M	-	5	2	4	1	12	2.21
	F	-	3	-	1	2	6	1.10
	T	-	8	2	5	3	18	3.31
Infantile cerebral palsy	M	-	1	8	11	6	26	4.79
	F	-	2	1	5	8	16	2.95
	T	-	3	9	16	14	42	7.73
Hemiplegia	M	-	-	1	3	2	6	1.10
	F	-	-	1	2	4	7	1.29
	T	-	-	2	5	6	13	2.39
Quadriplegia	M	-	-	-	1	-	1	0.18
	F	-	-	-	-	1	1	0.18
	T	-	-	-	1	1	2	0.37
Paraplegia	M	-	-	1	-	1	2	0.37
	F	-	-	-	1	-	1	0.18
	T	-	-	1	1	1	3	0.55
Other paralytic syndromes	M	-	-	2	-	6	8	1.47
	F	-	-	2	-	3	5	0.92
	T	-	-	4	-	9	13	2.39
Epilepsy	M	-	7	7	15	23	52	9.58
	F	1	3	12	14	18	48	8.84
	T	1	10	19	29	41	100	18.42
Retrolental fibroplasia	M	1	2	-	5	-	8	1.47
	F	-	-	-	1	-	1	0.18
	T	1	2	-	6	-	9	1.66
All other visual impairments/ blindness	M	-	8	9	8	16	41	7.55
	F	-	10	6	14	9	39	7.18
	T	-	18	15	22	25	80	14.73
Abnormal auditory perception and deafness	M	-	5	3	4	10	22	4.05
	F	-	4	1	5	6	16	2.95
	T	-	9	4	9	16	38	7.00
Rheumatoid arthritis (juvenile)	M	-	-	1	3	-	4	0.74
	F	-	-	-	-	2	2	0.37
	T	-	-	1	3	2	6	1.10
Disorders of muscle, ligament and fascia	M	-	-	-	1	3	4	0.74
	F	-	1	-	-	-	1	0.18
	T	-	1	-	1	3	5	0.92
Osteochondropathies	M	-	1	-	1	4	6	1.10
	F	-	-	1	-	-	1	0.18
	T	-	1	1	1	4	7	1.29
Other acquired deformities of limbs	M	-	-	2	4	1	7	1.29
	F	-	-	3	3	-	6	1.10
	T	-	-	5	7	1	13	2.39
Curvature of spine	M	-	-	-	-	-	-	-
	F	-	-	-	1	4	5	0.92
	T	-	-	-	1	4	5	0.92
Total Diagnoses	**M**	3	38	59	87	117	304	55.99
	F	3	36	38	67	94	237	43.65
	T	6	74	97	156	211	543	100.0
Total Cases	**M**	3	31	38	57	64	213	
	F	3	26	30	45	64	168	
	T	6	57	68	104	148	383	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 73

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

12 Cariboo

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	1	-	3	-	4	1.12
	F	-	2	1	1	-	4	1.12
	T	-	3	1	4	-	8	2.25
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Diabetes mellitus	M	-	-	1	5	7	13	3.65
	F	-	3	-	-	6	9	2.53
	T	-	3	1	5	13	22	6.18
Disorders of adrenal glands	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Tourette's syndrome	M	-	-	1	5	1	7	1.97
	F	-	-	-	-	-	-	-
	T	-	-	1	5	1	7	1.97
Hyperkinetic syndrome	M	-	-	-	5	3	8	2.25
	F	-	-	-	-	-	-	-
	T	-	-	-	5	3	8	2.25
Specific developmental delays	M	1	2	4	18	17	42	11.80
	F	1	-	3	6	9	19	5.34
	T	2	2	7	24	26	61	17.13
Mental retardation	M	1	4	2	6	7	20	5.62
	F	-	1	2	7	4	14	3.93
	T	1	5	4	13	11	34	9.55
Childhood cerebral degenerations and acquired hydrocephalus	M	-	-	-	1	2	3	0.84
	F	-	2	1	-	-	3	0.84
	T	-	2	[illegible]	1	2	6	1.69
Infantile cerebral palsy	M	-	3	2	9	2	16	4.49
	F	1	-	3	1	8	13	3.65
	T	1	3	5	10	10	29	8.15
Hemiplegia	M	-	-	-	2	-	2	0.56
	F	-	1	-	-	-	1	0.28
	T	-	1	-	2	-	3	0.84
Quadriplegia	M	-	-	-	-	-	-	-
	F	-	-	1	1	1	3	0.84
	T	-	-	1	1	1	3	0.84
Paraplegia	M	-	-	-	-	1	1	0.28
	F	-	-	-	-	1	1	0.28
	T	-	-	-	-	2	2	0.56
Other paralytic syndromes	M	-	1	-	2	1	4	1.12
	F	-	-	-	-	2	2	0.56
	T	-	1	-	2	3	6	1.69
Epilepsy	M	-	5	4	6	15	30	8.43
	F	-	4	3	6	18	31	8.71
	T	-	9	7	12	33	61	17.13
Retrolental fibroplasia	M	-	-	-	4	-	4	1.12
	F	-	-	-	3	2	5	1.40
	T	-	-	-	7	2	9	2.53
All other visual impairments/ blindness	M	-	2	4	10	11	27	7.58
	F	1	-	4	3	5	13	3.65
	T	1	2	8	13	16	40	11.24
Abnormal auditory perception and deafness	M	-	3	2	8	8	21	5.90
	F	-	-	3	1	7	11	3.09
	T	-	3	5	9	15	32	8.99
Rheumatoid arthritis (juvenile)	M	-	-	-	-	-	-	-
	F	-	1	-	-	3	4	1.12
	T	-	1	-	-	3	4	1.12
Disorders of muscle, ligament and fascia	M	-	-	-	1	1	2	0.56
	F	-	-	-	-	1	1	0.28
	T	-	-	-	1	2	3	0.84
Osteochondropathies	M	-	-	-	-	2	2	0.56
	F	-	-	-	-	1	1	0.28
	T	-	-	-	-	3	3	0.84
Other acquired deformities of limbs	M	-	1	-	6	1	8	2.25
	F	-	-	-	1	1	2	0.56
	T	-	1	-	7	2	10	2.81
Curvature of spine	M	-	1	-	-	-	1	0.28
	F	-	1	-	-	3	4	1.12
	T	-	2	-	-	3	5	1.40
Total Diagnoses	**M**	2	23	20	91	79	215	60.39
	F	3	15	21	30	73	141	39.61
	T	5	38	41	121	152	356	100.0
Total Cases	**M**	2	17	13	51	61	144	
	F	1	10	11	25	51	98	
	T	3	27	24	76	112	242	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 74

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

13 North West

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	-	1	2	3	6	1.27
	F	-	2	1	1	4	8	1.69
	T	-	2	2	3	7	14	2.96
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	2	1	3	0.63
	F	-	-	-	-	1	1	0.21
	T	-	-	-	2	2	4	0.85
Diabetes mellitus	M	-	-	1	-	3	4	0.85
	F	-	-	1	1	4	6	1.27
	T	-	-	2	1	7	10	2.11
Disorders of adrenal glands	M	-	-	1	-	1	2	0.42
	F	-	-	-	-	-	-	-
	T	-	-	1	-	1	2	0.42
Tourette's syndrome	M	-	-	1	1	-	2	0.42
	F	-	-	-	-	-	-	-
	T	-	-	1	1	-	2	0.42
Hyperkinetic syndrome	M	-	-	1	3	3	7	1.48
	F	-	-	-	1	-	1	0.21
	T	-	-	1	5	3	9	1.90
Specific developmental delays	M	1	5	14	12	24	56	11.84
	F	1	2	13	11	14	41	8.67
	T	2	11	28	25	38	104	21.99
Mental retardation	M	-	1	4	10	8	23	4.86
	F	-	2	5	4	14	25	5.29
	T	-	3	9	14	22	48	10.15
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	2	1	-	4	0.85
	F	4	3	-	1	1	9	1.90
	T	4	4	2	2	1	13	2.75
Infantile cerebral palsy	M	-	3	4	1	9	17	3.59
	F	-	1	4	12	6	23	4.86
	T	-	5	8	13	15	41	8.67
Hemiplegia	M	-	-	1	-	1	2	0.42
	F	-	-	-	-	2	2	0.42
	T	-	-	1	-	3	4	0.85
Quadriplegia	M	-	1	-	-	-	1	0.21
	F	-	-	-	1	-	1	0.21
	T	-	1	-	1	-	2	0.42
Paraplegia	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Other paralytic syndromes	M	-	-	2	2	4	8	1.69
	F	-	-	1	2	2	5	1.06
	T	-	-	3	4	6	13	2.75
Epilepsy	M	1	8	6	17	20	52	10.99
	F	1	6	5	6	15	33	6.98
	T	2	14	11	24	35	86	18.18
Retrolental fibroplasia	M	1	1	-	2	3	7	1.48
	F	-	1	1	2	-	4	0.85
	T	1	2	1	4	3	11	2.33
All other visual impairments/ blindness	M	1	2	2	2	11	18	3.81
	F	-	4	11	4	7	26	5.50
	T	1	6	13	6	18	44	9.30
Abnormal auditory perception and deafness	M	-	2	1	3	8	14	2.96
	F	-	-	3	3	2	8	1.69
	T	-	2	4	7	10	23	4.86
Rheumatoid arthritis (juvenile)	M	-	-	-	2	1	3	0.63
	F	-	-	-	3	2	5	1.06
	T	-	-	-	5	3	8	1.69
Disorders of muscle, ligament and fascia	M	-	-	-	1	2	3	0.63
	F	-	-	-	-	1	1	0.21
	T	-	-	-	1	3	4	0.85
Osteochondropathies	M	-	-	2	1	2	5	1.06
	F	-	-	-	2	-	2	0.42
	T	-	-	2	3	2	7	1.48
Other acquired deformities of limbs	M	-	-	1	2	6	9	1.90
	F	-	-	-	-	4	4	0.85
	T	-	-	1	2	10	13	2.75
Curvature of spine	M	-	-	1	-	3	4	0.85
	F	-	-	-	1	6	7	1.48
	T	-	-	1	1	9	11	2.33
Total Diagnoses	M	4	24	45	64	113	250	52.85
	F	6	21	45	55	85	212	44.82
	T	10	50	91	124	198	473	100.0
Total Cases	M	4	19	34	51	87	195	
	F	5	18	26	43	60	152	
	T	9	40	61	95	147	352	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category.However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 75

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
14 Peace Liard

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Hemangioma and lymphangiona	M	-	1	2	2	1	6	1.80
	F	-	-	-	1	3	4	1.20
	T	-	1	2	3	4	10	3.00
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	1	1	0.30
	F	-	-	-	-	1	1	0.30
	T	-	-	-	-	2	2	0.60
Diabetes mellitus	M	-	-	2	5	2	9	2.70
	F	-	-	1	1	7	9	2.70
	T	-	-	3	6	9	18	5.41
Disorders of adrenal glands	M	-	-	-	-	-	-	-
	F	-	-	1	-	-	1	0.30
	T	-	-	1	-	-	1	0.30
Tourette's syndrome	M	-	-	-	1	-	1	0.30
	F	-	-	-	1	-	1	0.30
	T	-	-	-	2	-	2	0.60
Hyperkinetic syndrome	M	-	-	-	3	2	5	1.50
	F	-	-	1	-	-	1	0.30
	T	-	-	1	3	2	6	1.80
Specific developmental delays	M	-	-	2	10	16	28	8.41
	F	-	1	3	5	10	19	5.71
	T	-	1	5	15	26	47	14.11
Mental retardation	M	-	1	3	2	12	18	5.41
	F	-	2	5	3	8	18	5.41
	T	-	3	8	5	20	36	10.81
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	-	-	3	4	1.20
	F	-	1	-	-	-	1	0.30
	T	-	2	-	-	3	5	1.50
Infantile cerebral palsy	M	-	1	2	6	2	11	3.30
	F	-	-	2	5	3	10	3.00
	T	-	1	4	11	5	21	6.31
Hemiplegia	M	-	-	-	-	1	1	0.30
	F	-	-	-	1	-	1	0.30
	T	-	-	-	1	1	2	0.60
Quadriplegia	M	-	-	-	-	-	-	-
	F	-	-	-	1	2	3	0.90
	T	-	-	-	1	2	3	0.90
Paraplegia	M	-	-	1	-	1	2	0.60
	F	-	-	1	-	-	1	0.30
	T	-	-	2	-	1	3	0.90
Other paralytic syndromes	M	-	-	-	-	1	1	0.30
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.30
Epilepsy	M	1	7	3	15	12	38	11.41
	F	-	2	7	10	10	29	8.71
	T	1	9	10	25	22	67	20.12
Retrolental fibroplasia	M	-	1	-	1	-	2	0.60
	F	-	1	-	1	1	3	0.90
	T	-	2	-	2	1	5	1.50
All other visual impairments/ blindness	M	2	4	4	11	17	38	11.41
	F	-	3	6	7	12	28	8.41
	T	2	7	10	18	29	66	19.82
Abnormal auditory perception and deafness	M	-	-	1	2	3	6	1.80
	F	-	1	2	5	4	12	3.60
	T	-	1	3	7	7	18	5.41
Rheumatoid arthritis (juvenile)	M	-	-	1	1	3	5	1.50
	F	-	2	-	1	3	6	1.80
	T	-	2	1	2	6	11	3.30
Disorders of muscle, ligament and fascia	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Osteochondropathies	M	-	-	-	1	-	1	0.30
	F	-	-	-	-	-	-	-
	T	-	-	-	1	-	1	0.30
Other acquired deformities of limbs	M	-	-	-	1	1	2	0.60
	F	-	-	-	-	2	2	0.60
	T	-	-	-	1	3	4	1.20
Curvature of spine	M	-	-	1	-	2	3	0.90
	F	-	-	-	-	1	1	0.30
	T	-	-	1	-	3	4	1.20
Total Diagnoses	**M**	3	16	22	61	80	182	54.65
	F	-	13	29	42	67	151	45.35
	T	3	29	51	103	147	333	100.0
Total Cases	**M**	3	16	19	42	54	134	
	F	-	10	21	32	46	109	
	T	3	26	40	74	100	243	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category.However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 76

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

15 Northern Interior

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	-	-	1	1	-	2	0.28
	F	-	-	-	1	-	1	0.14
	T	-	-	1	2	-	3	0.42
Hemangioma and lymphangiona	M	-	4	2	2	-	8	1.11
	F	1	1	1	1	3	7	0.97
	T	1	6	3	3	3	16	2.23
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	-	2	3	0.42
	F	-	-	-	2	-	2	0.28
	T	-	-	1	2	2	5	0.70
Diabetes mellitus	M	-	1	-	9	2	12	1.67
	F	-	-	2	2	2	6	0.83
	T	-	1	2	11	4	18	2.50
Disorders of adrenal glands	M	-	-	-	-	-	-	-
	F	-	-	-	1	1	2	0.28
	T	-	-	-	1	1	2	0.28
Tourette's syndrome	M	-	-	-	1	3	4	0.56
	F	-	-	-	-	-	-	-
	T	-	-	-	1	3	4	0.56
Hyperkinetic syndrome	M	-	-	5	3	7	15	2.09
	F	-	1	1	-	-	2	0.28
	T	-	1	7	4	7	19	2.64
Specific developmental delays	M	-	4	32	30	57	123	17.11
	F	2	4	18	9	22	55	7.65
	T	2	9	52	42	79	184	25.59
Mental retardation	M	1	1	12	6	13	33	4.59
	F	-	3	10	8	11	32	4.45
	T	1	6	22	14	24	67	9.32
Childhood cerebral degenerations and acquired hydrocephalus	M	-	5	2	1	3	11	1.53
	F	-	1	2	2	1	6	0.83
	T	-	6	4	3	4	17	2.36
Infantile cerebral palsy	M	1	1	4	20	13	39	5.42
	F	-	3	4	10	13	30	4.17
	T	1	4	8	30	26	69	9.60
Hemiplegia	M	-	-	1	5	6	12	1.67
	F	-	1	-	1	2	4	0.56
	T	-	1	1	7	8	17	2.36
Quadriplegia	M	-	-	1	-	-	1	0.14
	F	-	1	2	1	1	5	0.70
	T	-	1	3	1	1	6	0.83
Paraplegia	M	-	-	-	-	1	1	0.14
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.14
Other paralytic syndromes	M	-	-	-	4	1	5	0.70
	F	-	1	1	1	1	4	0.56
	T	-	1	1	5	2	9	1.25
Epilepsy	M	2	9	4	12	20	47	6.54
	F	-	5	8	9	13	35	4.87
	T	2	14	12	21	33	82	11.40
Retrolental fibroplasia	M	-	-	-	1	-	1	0.14
	F	-	5	-	2	1	8	1.11
	T	-	5	-	3	1	9	1.25
All other visual impairments/ blindness	M	2	11	6	15	23	57	7.93
	F	1	7	7	9	22	46	6.40
	T	3	18	13	26	46	106	14.74
Abnormal auditory perception and deafness	M	1	1	1	13	5	21	2.92
	F	1	3	1	4	7	16	2.23
	T	2	4	2	17	12	37	5.15
Rheumatoid arthritis (juvenile)	M	-	-	-	1	4	5	0.70
	F	-	-	-	2	2	4	0.56
	T	-	-	-	3	6	9	1.25
Disorders of muscle, ligament and fascia	M	1	-	-	1	5	7	0.97
	F	-	-	-	-	1	1	0.14
	T	1	-	-	1	6	8	1.11
Osteochondropathies	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	-	-	-	-
Other acquired deformities of limbs	M	-	-	-	5	6	11	1.53
	F	-	-	-	2	5	7	0.97
	T	-	-	-	7	11	18	2.50
Curvature of spine	M	-	-	-	-	1	1	0.14
	F	-	-	-	2	10	12	1.67
	T	-	-	-	2	11	13	1.81
Total Diagnoses	**M**	8	37	72	130	172	419	58.28
	F	5	36	57	69	118	285	39.64
	T	13	77	132	206	291	719	100.0
Total Cases	**M**	5	29	58	85	113	290	
	F	5	31	37	49	69	191	
	T	10	64	97	137	183	491	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category.However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 77

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
16 Vancouver

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	1	1	1	-	3	0.13
	F	-	-	-	2	1	3	0.13
	T	-	1	1	3	1	6	0.26
Hemangioma and lymphangiona	M	4	10	5	7	4	30	1.28
	F	-	6	11	4	5	26	1.11
	T	4	16	16	11	9	56	2.39
Neurofibromatosis/ von Recklinghausen's	M	-	-	1	3	2	6	0.26
	F	-	-	1	2	3	6	0.26
	T	-	-	2	6	5	13	0.55
Diabetes mellitus	M	1	3	7	19	21	51	2.17
	F	-	3	8	12	24	47	2.00
	T	1	6	15	31	45	98	4.18
Disorders of adrenal glands	M	-	1	3	-	-	4	0.17
	F	-	1	2	1	2	6	0.26
	T	-	2	5	1	2	10	0.43
Tourette's syndrome	M	-	-	-	7	4	11	0.47
	F	-	-	-	4	-	4	0.17
	T	-	-	-	11	4	15	0.64
Hyperkinetic syndrome	M	1	-	5	11	16	33	1.41
	F	-	-	1	4	5	10	0.43
	T	1	-	6	16	21	44	1.88
Specific developmental delays	M	2	33	36	82	86	239	10.19
	F	1	18	37	50	28	134	5.71
	T	3	54	82	135	114	388	16.55
Mental retardation	M	2	17	21	39	44	123	5.25
	F	1	13	24	30	27	95	4.05
	T	3	32	45	70	74	224	9.55
Childhood cerebral degenerations and acquired hydrocephalus	M	4	6	4	8	7	29	1.24
	F	1	4	3	6	3	17	0.72
	T	5	10	7	14	10	46	1.96
Infantile cerebral palsy	M	1	7	17	30	26	81	3.45
	F	-	4	16	29	24	73	3.11
	T	1	11	33	59	50	154	6.57
Hemiplegia	M	-	-	1	4	7	12	0.51
	F	-	2	2	2	6	12	0.51
	T	-	2	3	6	13	24	1.02
Quadriplegia	M	-	-	1	1	2	4	0.17
	F	-	2	2	1	2	7	0.30
	T	-	2	3	2	4	11	0.47
Paraplegia	M	-	-	1	1	4	6	0.26
	F	-	-	-	1	1	2	0.09
	T	-	-	1	2	5	8	0.34
Other paralytic syndromes	M	-	1	4	6	8	19	0.81
	F	-	1	4	6	6	17	0.72
	T	-	2	8	12	14	36	1.54
Epilepsy	M	6	42	98	133	92	371	15.82
	F	3	31	64	116	72	286	12.20
	T	10	73	162	250	165	660	28.14
Retrolental fibroplasia	M	-	9	2	10	5	26	1.11
	F	1	11	2	8	3	25	1.07
	T	1	20	4	18	8	51	2.17
All other visual impairments/ blindness	M	2	24	36	50	68	180	7.68
	F	3	16	28	37	28	112	4.78
	T	5	42	68	90	96	301	12.84
Abnormal auditory perception and deafness	M	-	6	7	13	14	40	1.71
	F	1	4	7	5	19	36	1.54
	T	1	11	14	19	33	78	3.33
Rheumatoid arthritis (juvenile)	M	-	-	-	6	13	19	0.81
	F	-	-	1	7	5	13	0.55
	T	-	-	1	13	18	32	1.36
Disorders of muscle, ligament and fascia	M	-	-	-	-	1	1	0.04
	F	1	1	-	3	2	7	0.30
	T	1	1	-	3	3	8	0.34
Osteochondropathies	M	-	-	2	9	4	15	0.64
	F	-	-	-	2	2	4	0.17
	T	-	-	2	11	6	19	0.81
Other acquired deformities of limbs	M	-	1	3	10	14	28	1.19
	F	1	2	2	6	5	16	0.68
	T	1	3	5	16	19	44	1.88
Curvature of spine	M	-	-	1	1	6	8	0.34
	F	-	-	1	3	7	11	0.47
	T	-	-	2	4	13	19	0.81
Total Diagnoses	**M**	23	161	256	451	448	1,339	57.10
	F	13	119	216	341	281	969	41.32
	T	37	288	485	803	733	2,345	100.00
Total Cases	**M**	21	122	178	314	325	960	
	F	13	91	155	248	210	717	
	T	35	220	344	570	537	1,706	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 78

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

17 Burnaby

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	-	-	-	1	-	1	0.17
	F	-	-	1	-	-	1	0.17
	T	-	-	1	1	-	2	0.34
Hemangioma and lymphangiona	M	-	1	2	-	2	5	0.84
	F	1	2	-	2	-	5	0.84
	T	1	3	2	2	2	10	1.69
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	-	-	-	1	-	1	0.17
	T	-	1	1	2	-	4	0.67
Diabetes mellitus	M	-	-	-	5	7	12	2.02
	F	-	2	-	5	8	15	2.53
	T	-	2	-	10	15	27	4.55
Disorders of adrenal glands	M	-	1	-	1	-	2	0.34
	F	-	-	-	-	-	-	-
	T	-	1	-	1	-	2	0.34
Tourette's syndrome	M	-	-	-	2	-	2	0.34
	F	-	-	-	1	1	2	0.34
	T	-	-	-	3	1	4	0.67
Hyperkinetic syndrome	M	-	-	1	5	3	9	1.52
	F	-	-	2	2	4	8	1.35
	T	-	-	3	7	7	17	2.87
Specific developmental delays	M	1	10	10	15	14	50	8.43
	F	-	6	7	19	8	40	6.75
	T	1	17	18	34	22	92	15.51
Mental retardation	M	-	5	10	4	12	31	5.23
	F	2	4	3	10	12	31	5.23
	T	2	9	13	14	24	62	10.46
Childhood cerebral degenerations and acquired hydrocephalus	M	-	1	2	1	2	6	1.01
	F	-	3	-	1	1	5	0.84
	T	-	4	2	2	3	11	1.85
Infantile cerebral palsy	M	1	2	8	5	7	23	3.88
	F	-	1	6	6	8	21	3.54
	T	1	3	14	11	15	44	7.42
Hemiplegia	M	-	-	-	1	2	3	0.51
	F	-	-	2	1	2	5	0.84
	T	-	-	2	2	4	8	1.35
Quadriplegia	M	-	-	1	-	1	2	0.34
	F	-	-	-	1	1	2	0.34
	T	-	-	1	1	2	4	0.67
Paraplegia	M	-	-	-	-	1	1	0.17
	F	-	-	-	-	2	2	0.34
	T	-	-	-	-	3	3	0.51
Other paralytic syndromes	M	-	1	-	3	2	6	1.01
	F	-	-	1	1	3	5	0.84
	T	-	1	1	4	5	11	1.85
Epilepsy	M	3	10	15	20	19	67	11.30
	F	-	8	10	32	15	65	10.96
	T	3	18	25	52	34	132	22.26
Retrolental fibroplasia	M	-	2	-	3	1	6	1.01
	F	-	-	-	1	-	1	0.17
	T	-	2	-	4	1	7	1.18
All other visual impairments/ blindness	M	-	6	11	12	13	42	7.08
	F	-	9	5	18	3	35	5.90
	T	-	15	16	30	17	78	13.15
Abnormal auditory perception and deafness	M	-	6	3	2	1	12	2.02
	F	-	-	2	3	2	7	1.18
	T	-	6	5	5	3	19	3.20
Rheumatoid arthritis (juvenile)	M	-	-	-	2	3	5	0.84
	F	-	-	-	2	2	4	0.67
	T	-	-	-	4	5	9	1.52
Disorders of muscle, ligament and fascia	M	-	1	1	1	2	5	0.84
	F	-	-	-	-	2	2	0.34
	T	-	1	1	1	4	7	1.18
Osteochondropathies	M	-	-	1	8	3	12	2.02
	F	-	-	2	-	-	2	0.34
	T	-	-	3	8	3	14	2.36
Other acquired deformities of limbs	M	-	1	-	2	4	7	1.18
	F	-	-	-	4	3	7	1.18
	T	-	1	-	6	7	14	2.36
Curvature of spine	M	-	-	-	-	1	1	0.17
	F	-	-	1	3	7	11	1.85
	T	-	-	1	3	8	12	2.02
Total Diagnoses	**M**	5	47	65	93	100	310	52.28
	F	3	35	42	113	84	277	46.71
	T	8	84	109	207	185	593	100.0
Total Cases	**M**	4	34	45	71	78	232	
	F	3	26	29	74	59	191	
	T	7	62	76	146	138	429	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals

Table 79

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
18 North Shore

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignacy of eye	M	-	-	-	-	-	-	-
	F	-	-	1	-	1	2	0.38
	T	-	-	1	-	1	2	0.38
Hemangioma and lymphangiona	M	-	5	1	-	1	7	1.34
	F	-	3	1	1	3	8	1.53
	T	-	8	2	1	4	15	2.86
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	-	-	-
	F	-	-	-	-	-	-	-
	T	-	-	-	1	-	1	0.19
Diabetes mellitus	M	-	-	1	6	4	11	2.10
	F	-	-	2	1	-	3	0.57
	T	-	-	3	7	4	14	2.67
Disorders of adrenal glands	M	-	-	-	-	-	-	-
	F	-	1	-	-	-	1	0.19
	T	-	1	-	-	-	1	0.19
Tourette's syndrome	M	-	-	-	2	-	2	0.38
	F	-	-	-	-	-	-	-
	T	-	-	-	2	-	2	0.38
Hyperkinetic syndrome	M	-	-	1	3	1	5	0.95
	F	-	-	-	-	1	1	0.19
	T	-	-	1	3	2	6	1.15
Specific developmental delays	M	1	2	9	19	20	51	9.73
	F	-	1	13	6	11	31	5.92
	T	1	7	23	26	31	88	16.79
Mental retardation	M	-	4	8	10	10	32	6.11
	F	2	4	8	10	15	39	7.44
	T	2	8	16	20	25	71	13.55
Childhood cerebral degenerations and acquired hydrocephalus	M	1	3	2	3	-	9	1.72
	F	1	-	1	5	1	8	1.53
	T	2	3	3	8	1	17	3.24
Infantile cerebral palsy	M	-	-	6	7	3	16	3.05
	F	-	1	7	6	7	21	4.01
	T	-	1	13	13	10	37	7.06
Hemiplegia	M	-	1	-	-	1	2	0.38
	F	-	-	1	1	1	3	0.57
	T	-	1	1	1	2	5	0.95
Quadriplegia	M	-	-	-	1	1	2	0.38
	F	-	-	-	-	1	1	0.19
	T	-	-	-	1	2	3	0.57
Paraplegia	M	-	-	-	-	2	2	0.38
	F	-	-	-	-	-	-	-
	T	-	-	-	-	2	2	0.38
Other paralytic syndromes	M	-	-	-	2	1	3	0.57
	F	-	-	1	2	3	6	1.15
	T	-	-	1	4	4	9	1.72
Epilepsy	M	-	13	11	24	13	61	11.64
	F	1	6	5	21	12	45	8.59
	T	1	19	16	45	25	106	20.23
Retrolental fibroplasia	M	-	-	-	1	3	4	0.76
	F	-	1	-	2	4	7	1.34
	T	-	1	-	3	7	11	2.10
All other visual impairments/ blindness	M	-	2	7	5	15	29	5.53
	F	-	3	14	11	12	40	7.63
	T	-	6	21	16	27	70	13.36
Abnormal auditory perception and deafness	M	1	1	2	-	3	7	1.34
	F	-	-	1	4	1	6	1.15
	T	1	1	3	4	4	13	2.48
Rheumatoid arthritis (juvenile)	M	-	-	-	2	2	4	0.76
	F	-	-	1	-	2	3	0.57
	T	-	-	1	2	4	7	1.34
Disorders of muscle, ligament and fascia	M	-	-	-	1	2	3	0.57
	F	-	-	2	1	2	5	0.95
	T	-	-	2	2	4	8	1.53
Osteochondropathies	M	-	-	1	5	5	11	2.10
	F	-	-	-	-	1	1	0.19
	T	-	-	1	5	6	12	2.29
Other acquired deformities of limbs	M	-	-	1	1	4	6	1.15
	F	-	-	-	3	2	5	0.95
	T	-	-	1	4	6	11	2.10
Curvature of spine	M	-	-	-	-	3	3	0.57
	F	-	-	-	2	8	10	1.91
	T	-	-	-	2	11	13	2.48
Total Diagnoses	**M**	3	31	50	92	94	270	51.53
	F	4	20	58	76	88	246	46.95
	T	7	56	109	170	182	524	100.0
Total Cases	**M**	3	30	35	64	64	196	
	F	4	18	40	52	62	176	
	T	7	53	76	118	126	380	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 80

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group
British Columbia, As of Year-End 1998
19 Richmond

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	-	-	-	1	-	1	0.16
	F	-	-	1	-	-	1	0.16
	T	-	-	1	1	-	2	0.33
Hemangioma and lymphangiona	M	-	1	3	-	1	5	0.81
	F	-	1	2	-	1	4	0.65
	T	-	3	5	-	2	10	1.63
Neurofibromatosis/ von Recklinghausen's	M	-	-	-	-	1	1	0.16
	F	-	-	-	-	2	2	0.33
	T	-	-	-	-	3	3	0.49
Diabetes mellitus	M	-	2	7	8	8	25	4.07
	F	-	1	1	6	8	16	2.60
	T	-	3	8	14	16	41	6.67
Disorders of adrenal glands	M	-	-	1	-	-	1	0.16
	F	-	-	-	-	1	1	0.16
	T	-	-	1	-	1	2	0.33
Tourette's syndrome	M	-	-	-	4	1	5	0.81
	F	-	-	-	-	-	-	-
	T	-	-	-	4	1	5	0.81
Hyperkinetic syndrome	M	-	-	4	6	7	17	2.76
	F	-	-	-	3	3	6	0.98
	T	-	-	4	9	10	23	3.74
Specific developmental delays	M	-	3	12	25	25	65	10.57
	F	-	2	9	18	11	40	6.50
	T	-	7	23	44	36	110	17.89
Mental retardation	M	-	2	13	12	12	39	6.34
	F	-	4	6	6	8	24	3.90
	T	-	7	19	18	20	64	10.41
Childhood cerebral degenerations and acquired hydrocephalus	M	-	-	-	2	-	2	0.33
	F	1	-	-	2	1	4	0.65
	T	1	-	-	4	1	6	0.98
Infantile cerebral palsy	M	-	1	6	11	8	26	4.23
	F	-	-	1	7	7	15	2.44
	T	-	1	7	18	15	41	6.67
Hemiplegia	M	-	-	1	-	2	3	0.49
	F	-	1	2	2	-	5	0.81
	T	-	1	3	2	2	8	1.30
Quadriplegia	M	-	-	-	3	1	4	0.65
	F	-	-	-	1	-	1	0.16
	T	-	-	-	4	1	5	0.81
Paraplegia	M	-	-	-	-	1	1	0.16
	F	-	-	-	1	-	1	0.16
	T	-	-	-	1	1	2	0.33
Other paralytic syndromes	M	-	2	1	-	1	4	0.65
	F	-	2	-	3	2	7	1.14
	T	-	4	1	3	3	11	1.79
Epilepsy	M	2	11	15	27	19	74	12.03
	F	2	2	13	25	20	62	10.08
	T	4	13	28	52	39	136	22.11
Retrolental fibroplasia	M	-	-	1	1	1	3	0.49
	F	-	-	1	2	-	3	0.49
	T	-	-	2	3	1	6	0.98
All other visual impairments/ blindness	M	-	2	10	11	20	43	6.99
	F	1	3	7	8	7	26	4.23
	T	1	5	17	19	29	71	11.54
Abnormal auditory perception and deafness	M	-	-	2	6	6	14	2.28
	F	-	3	1	10	3	17	2.76
	T	-	3	3	16	9	31	5.04
Rheumatoid arthritis (juvenile)	M	-	-	-	-	2	2	0.33
	F	-	-	1	-	2	3	0.49
	T	-	-	1	-	4	5	0.81
Disorders of muscle, ligament and fascia	M	-	-	1	1	1	3	0.49
	F	-	-	-	-	1	1	0.16
	T	-	-	1	1	2	4	0.65
Osteochondropathies	M	-	1	-	2	2	5	0.81
	F	-	1	-	-	-	1	0.16
	T	-	2	-	2	2	6	0.98
Other acquired deformities of limbs	M	-	-	3	2	2	7	1.14
	F	-	-	-	-	3	3	0.49
	T	-	-	3	2	5	10	1.63
Curvature of spine	M	-	-	1	-	2	3	0.49
	F	-	-	-	3	7	10	1.63
	T	-	-	1	3	9	13	2.11
Total Diagnoses	M	2	25	81	122	123	353	57.40
	F	4	20	45	97	87	253	41.14
	T	6	49	128	220	212	615	100.0
Total Cases	M	2	22	61	77	87	249	
	F	4	20	34	54	62	174	
	T	6	46	97	132	150	431	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category.However, if an individual is diagnosed with a condition in more than one category they are counted in each category. Individuals with unknown gender are included in totals.

Table 81

Counts of Children (less than 20 yrs.) Living with Selected Disabilities and Handicapping Conditions by Age Group

British Columbia, As of Year-End 1998

20 Capital

Disability	Gender	<1	1-4	5-9	10-14	15-19	Total	% Total
Malignancy of eye	M	1	-	1	-	-	2	0.14
	F	-	-	1	-	1	2	0.14
	T	1	-	2	-	1	4	0.28
Hemangioma and lymphangiona	M	-	5	-	2	4	11	0.76
	F	-	3	1	3	3	10	0.69
	T	-	8	1	5	7	21	1.45
Neurofibromatosis/ von Recklinghausen's	M	-	1	1	-	2	4	0.28
	F	-	3	4	-	1	8	0.55
	T	-	4	7	-	3	14	0.96
Diabetes mellitus	M	1	-	6	12	12	31	2.14
	F	-	2	5	19	5	31	2.14
	T	1	2	11	31	17	62	4.27
Disorders of adrenal glands	M	-	-	1	-	-	1	0.07
	F	-	-	3	1	-	4	0.28
	T	-	-	4	1	-	5	0.34
Tourette's syndrome	M	-	-	4	9	-	13	0.90
	F	-	-	-	2	1	3	0.21
	T	-	-	4	11	1	16	1.10
Hyperkinetic syndrome	M	-	-	23	45	3	71	4.89
	F	-	1	8	5	5	19	1.31
	T	-	1	31	50	8	90	6.20
Specific developmental delays	M	-	8	43	95	32	178	12.27
	F	-	11	21	52	23	107	7.37
	T	-	19	65	148	55	287	19.78
Mental retardation	M	2	10	20	18	31	81	5.58
	F	1	9	15	11	34	70	4.82
	T	3	19	35	29	65	151	10.41
Childhood cerebral degenerations and acquired hydrocephalus	M	2	2	2	3	4	13	0.90
	F	-	4	3	1	1	9	0.62
	T	2	6	5	4	5	22	1.52
Infantile cerebral palsy	M	-	4	25	16	16	61	4.20
	F	-	5	16	15	15	51	3.51
	T	-	9	41	31	31	112	7.72
Hemiplegia	M	-	1	1	-	2	4	0.28
	F	-	-	1	3	2	6	0.41
	T	-	1	2	3	4	10	0.69
Quadriplegia	M	-	-	1	1	1	3	0.21
	F	-	-	-	-	1	1	0.07
	T	-	-	1	1	2	4	0.28
Paraplegia	M	-	-	-	-	1	1	0.07
	F	-	-	-	-	-	-	-
	T	-	-	-	-	1	1	0.07
Other paralytic syndromes	M	-	2	3	-	-	5	0.34
	F	-	-	-	2	4	6	0.41
	T	-	2	3	2	4	11	0.76
Epilepsy	M	-	9	16	29	26	80	5.51
	F	1	7	19	26	22	75	5.17
	T	1	16	35	55	48	155	10.68
Retrolental fibroplasia	M	6	6	2	-	-	14	0.96
	F	3	5	-	2	2	12	0.83
	T	9	11	2	2	2	26	1.79
All other visual impairments/ blindness	M	-	14	19	29	18	80	5.51
	F	-	22	21	22	35	100	6.89
	T	-	36	40	51	53	180	12.41
Abnormal auditory perception and deafness	M	1	15	55	33	23	127	8.75
	F	1	10	31	39	25	106	7.31
	T	2	25	86	72	48	233	16.06
Rheumatoid arthritis (juvenile)	M	-	-	-	6	1	7	0.48
	F	-	-	3	2	1	6	0.41
	T	-	-	3	8	2	13	0.90
Disorders of muscle, ligament and fascia	M	-	-	-	2	1	3	0.21
	F	-	-	-	1	1	2	0.14
	T	-	-	-	3	2	5	0.34
Osteochondropathies	M	-	-	1	2	-	3	0.21
	F	-	-	-	-	-	-	-
	T	-	-	1	2	-	3	0.21
Other acquired deformities of limbs	M	-	-	-	1	1	2	0.14
	F	-	1	-	4	3	8	0.55
	T	-	1	-	5	4	10	0.69
Curvature of spine	M	-	-	-	-	4	4	0.28
	F	-	-	2	4	6	12	0.83
	T	-	-	2	4	10	16	1.10
Total Diagnoses	**M**	13	77	224	304	182	799	55.07
	F	6	83	154	214	191	648	44.66
	T	19	160	381	519	373	1,451	100.00
Total Cases	**M**	11	64	162	242	128	607	
	F	6	63	116	157	123	465	
	T	17	127	281	400	251	1,076	

Note: An individual with more than one diagnosed condition within a category is only counted once for that category. However, if an individual is diagnosed with a condition in more than one category they care counted in each category. Individuals with unknown gender are included in totals.

Appendix 1: Congenital Anomaly Categories and Codes

The congenital anomaly groupings used in the first section of this report are based on the following *International Classification of Diseases* (ICD-9) codes:

Diagnostic Category	**ICD9 Codes**
Nervous System Defects	740-742
anencephalus and similar defects	740.0-740.2
neural tube defects	741.0, 741.9, 742.0
hydrocephalus	742.3
other nervous system	742.1-742.2, 742.4-742.9
Anomalies of the Eye	743
Anomalies of Ear, Face, Neck	744
Anomalies of Heart	745-746
transposition of great vessels	745.1
tetralogy of Fallot	745.2
ventricular septal defect	745.4
hypoplastic left heart syndrome	746.7
other heart anomalies	745.0, 745.3, 745.5-746.6, 746.8, 746.9
Anomalies of Circulatory System	747
patent ductus arteriosus	747.0
other circulatory system anomalies	747.1-747.9
Anomalies of Respiratory System	748
Cleft Palate/Cleft Lip	749.0-749.2
Anomalies of Upper Alimentary Tract	750
tracheoesophageal fistula/atresia/stenosis	750.3
pyloric stenosis	750.5
other anomalies of alimentary tract	750.0-750.2, 750.4, 750.6-750.9
Other Anomalies of Digestive System	751
Anomalies of Genital Organs	752
Anomalies of Urinary System	753
renal agenesis	753.0
cystic kidney disease	753.1
other urinary anomalies	753.2-753.9
Congenital Musculoskeletal Deformities	754-756
congenital dislocation of hip	754.3
lordosis/scoliosis	754.2
varus, valgus, clubfoot	754.5-754.7
polydactyly, syndactyly	755.0-755.1
limb reductions	755.2-755.4
chondro/osteo dystrophies	756.4, 756.5
other musculoskeletal deformities	754.0-754.1, 754.4, 754.8, 755.5-756.3, 756.6-756.9
Anomalies of the Integument	757, 228.0
hemangioma	228.0
other anomalies of integument	757
Chromosomal Anomalies	758
Downs syndrome	758.0
other chromosomal anomalies	758.1-758.9
Multiple Anomalies	759.7-759.8
Other and Unspecified Anomalies	759.0-759.6, 759.9

All congenital anomaly groupings used in the first three sections of this report are based on groups or subgroups of the categories shown on the previous page. Figures 1-12 present trends of selected congenital anomalies using total diagnoses, ancephalus and similar defects, neural tube defects, hydrocephalus, ventricular septal defect, patent ductus arteriosus, cleft palate/lip, congenital dislocated hip, varus or valgus anomalies and clubfoot, polydactyly and syndactyly, limb reductions, and Downs syndrome. Tables 26-39 and the maps (Figures 13-19) provide information for total diagnoses, total cases, nervous system defects, anomalies of heart, cleft palate/cleft lip, congenital musculoskeletal deformities, and chromosomal anomalies. Please see the first three sections of this report for more information about these conditions.

The diagnoses listed above reflect the conditions shown in tables in the first section of this report, not all congenital anomalies registered by HSR.

Appendix 2: Birth Defect Monitoring Categories and Codes

Table 4 in the second section of this report presents statistics for the congenital anomalies categories used for monitoring birth defects. Vital Statistics instituted the production of a Birth Defect Monitor Report starting with the third quarter of 1995. The purpose of these reports is to provide information to Medical Health Officers about the incidence of serious birth defects in Health Regions across the province. The selection of anomalies to be monitored was based on a review of similar monitors in use in other jurisdictions, with input from medical consultants. The categories used for birth defect monitoring are anencephalus, spina bifida, hydrocephalus, hypoplastic left heart syndrome, cleft palate, cleft lip with or without cleft palate, tracheoesophageal fistula, atresia/stenosis of large intestine, hypospadias and epispadias, renal agenesis, limb reduction deformities, anomalies of skull and face bones, and Downs syndrome. Many of these categories (hydrocephalus, tracheoesophageal fistula, renal agenesis, limb reduction deformities, hypoplastic left heart syndrome, and Downs syndrome) are the same categories shown on the previous page and used for the congenital anomalies tables and figures presented in the first three sections of this report. The other birth defect monitoring categories are more specific than those used for the congenital anomalies tables and figures.

The birth defect monitoring groupings used in Table 4 are based on the following *International Classification of Diseases* (ICD-9) codes:

Diagnostic Category	**ICD9 Codes**
Anencephalus	740.0
Spina bifida	741.0, 741.9
Hydrocephalus	742.3
Hypoplastic left heart syndrome	746.7
Cleft palate	749.0
Cleft lip with or without cleft palate	749.1-749.2
Tracheoesophageal fistula/atresia/stenosis	750.3
Atresia/stenosis of large intestine	751.2
Hypospadias and epispadias	752.6
Limb reductions	755.2-755.4
Renal agenesis	753.0
Anomalies of skull and face bones	756.0
Downs syndrome	758.0

Please see the first three sections of this report for more information about these conditions.

Appendix 3: Other Genetic Conditions Categories and Codes

The groupings used for other genetic conditions in the fourth section of this report are based on the following *International Classification of Diseases* (ICD-9) codes:

Diagnostic Category	**ICD9 Codes**
Congenital syphilis	090
Acromegaly/gigantism	253.0
Pituitary dwarfism	253.3
Hyper/hypo & other pituitary dysfunction	253.1-253.2, 253.4-253.9
Phenylketonuria (PKU)	270.1
Other disorders of amino-acid transport/metabolism	270.0, 270.2-270.9
Disorders of carbohydrate transport/metabolism	271
Disorders of plasma protein metabolism	273
Disorders of mineral metabolism	275
Cystic fibrosis	277.0
Other and unspecified disorders of metabolism	277.1-277.9
Hereditary hemolytic & aplastic anemias	282, 284.0
Hemophilia and other coagulation defects	286
Huntington's chorea	333.4
Other extrapyramidal diseases	333.0-333.3, 333.5-333.9
Anterior horn cell diseases (excludes ALS)	335.0-335.1, 335.8-335.9
Muscular dystrophy	359.0-359.1
Other myopathies	359.2-359.9
Hereditary disturbance in tooth structure	520

Please see the fourth section of this report for more information about these conditions.

The diagnoses listed above reflect the conditions shown in tables in the fourth section of this report, not all other genetic conditions registered by HSR.

Appendix 4: Selected Chronic Disabilities and Handicapping Conditions Categories and Codes

The groupings used for selected chronic disabilities and handicapping conditions in the fifth section of this report are based on the following *International Classification of Diseases* (ICD-9) codes:

Diagnostic Category	**ICD9 Codes**
Malignancy of eye	190
Hemangioma & lymphangioma	228.0-228.1
Neurofibromatosis / von Recklinghausen' s	237.7
Diabetes mellitus	250
Disorders of adrenal glands	255
Tourette's syndrome	307.2
Hyperkinetic syndrome	314
Specific developmental delays	315, 783.4
Mental retardation	317-319
Childhood cerebral degenerations and acquired hydrocephalus	330, 331.3-331.4
Infantile cerebral palsy	343
Hemiplegia	342
Quadriplegia	344.0
Paraplegia	344.1
Other paralytic syndromes	344.2-344.9
Epilepsy	345
Retrolental fibroplasia	362.2
All other visual impairments/blindness	361.0-362.1, 362.3-362.9, 371, 377, 743.0
Abnormal auditory perception and deafness	388.0-388.5, 389, 744.0
Rheumatoid arthritis (juvenile)	714
Disorders of muscle, ligament and fascia	728
Osteochondropathies	732
Other acquired deformities of limbs	736, N885-897
Curvature of spine	737

Please see the fifth section of this report for more information about these conditions.

The diagnoses listed above reflect the conditions shown in tables in the fifth section of this report, not all chronic disabilities and handicapping conditions registered by HSR.

Readers' Note

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